

SYNOPSIS
Of
BASE IMPLEMENTATION OF EXECUTIVE 13101: BUYING
ENVIRONMENTALLY PREFERABLE PRODUCTS AND SERVICES

Consumers, such as the federal government, play an important role in improving the environment through their purchasing power. The federal government can wield its purchasing power to influence manufacturers and suppliers to produce and supply products and services that will improve the environment while at the same time, creating "green" markets both for the public and private sectors.

Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition, requires the federal government to purchase environmentally preferable products and services (EPP). The thesis will serve as a "handbook" for USAF installations in implementing "green procurement."

Before delineating the implementation, chapter 1 of the thesis examines the Executive Order 13101's statutory and regulatory roots. Its statutory basis is the Resource Conservation Recovery Act (RCRA) section 60002. This is later expounded in Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention and Federal Acquisition Regulation Part 23. Then, the thesis presents pilot projects in implementing "green procurement."

Chapter 2 examines the benefits and dispels the misconceptions of purchasing EPP. Examples of the benefits are avoidance of RCRA violation, creation of new technology, conservation of landfills, and conservation of energy.

Chapter 3 presents the general implementation of Executive Order 13101. It defines EPP, identifies the key players and their respective responsibilities, and a framework.

The next four chapters provide guidance in implementation of Executive Order 13101, particularly during the procurement process using the government credit card and the three types of government contracts: Supply, Services, and Construction.

Chapter 7 explores future trends for the program, which includes further revision of the Federal Acquisition Regulation, documentation of government card purchase or nonpurchase of EPP, and enforcement actions.

Chapter 8 is the conclusion. The thesis has 11 appendices that help the implementation of Executive Order 13101.

20010405 017

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 22.Mar.01	3. REPORT TYPE AND DATES COVERED THESIS		
4. TITLE AND SUBTITLE BASE IMPLEMENTATION OF EXECUTIVE ORDER 13101: BUYING ENVIRONMENTALLY PREFERABLE PRODUCTS AND SERVICES		5. FUNDING NUMBERS		
6. AUTHOR(S) MAJ SANTA TERESA JOSE E				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) GEORGE WASHINGTON UNIVERSITY		8. PERFORMING ORGANIZATION REPORT NUMBER CI01-68		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) THE DEPARTMENT OF THE AIR FORCE AFIT/CIA, BLDG 125 2950 P STREET WPAFB OH 45433		10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES				
12a. DISTRIBUTION AVAILABILITY STATEMENT Unlimited distribution In Accordance With AFI 35-205/AFIT Sup 1		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words)				
14. SUBJECT TERMS			15. NUMBER OF PAGES 4	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT	

SYNOPSIS
Of
BASE IMPLEMENTATION OF EXECUTIVE 13101: BUYING
ENVIRONMENTALLY PREFERABLE PRODUCTS AND SERVICES

Consumers, such as the federal government, play an important role in improving the environment through their purchasing power. The federal government can wield its purchasing power to influence manufacturers and suppliers to produce and supply products and services that will improve the environment while at the same time, creating "green" markets both for the public and private sectors.

Executive Order 13101, Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition, requires the federal government to purchase environmentally preferable products and services (EPP). The thesis will serve as a "handbook" for USAF installations in implementing "green procurement."

Before delineating the implementation, chapter 1 of the thesis examines the Executive Order 13101's statutory and regulatory roots. Its statutory basis is the Resource Conservation Recovery Act (RCRA) section 60002. This is later expounded in Executive Order 12873, Federal Acquisition, Recycling, and Waste Prevention and Federal Acquisition Regulation Part 23. Then, the thesis presents pilot projects in implementing "green procurement."

Chapter 2 examines the benefits and dispels the misconceptions of purchasing EPP. Examples of the benefits are avoidance of RCRA violation, creation of new technology, conservation of landfills, and conservation of energy.

Chapter 3 presents the general implementation of Executive Order 13101. It defines EPP, identifies the key players and their respective responsibilities, and a framework.

The next four chapters provide guidance in implementation of Executive Order 13101, particularly during the procurement process using the government credit card and the three types of government contracts: Supply, Services, and Construction.

Chapter 7 explores future trends for the program, which includes further revision of the Federal Acquisition Regulation, documentation of government card purchase or nonpurchase of EPP, and enforcement actions.

Chapter 8 is the conclusion. The thesis has 11 appendices that help the implementation of Executive Order 13101.

BASE IMPLEMENTATION OF EXECUTIVE ORDER 13101: BUYING
ENVIRONMENTALLY PREFERABLE PRODUCTS AND SERVICES

By

Jose Emmanuel Ignacio Santa Teresa

B.A., June 1987, Herbert H. Lehman College of the City University of New York

J.D., May 1990, Ohio Northern University

A Thesis submitted to
The Faculty of

The George Washington University
Law School
In partial satisfaction of the requirements
For the degree of Masters of Laws

July 27, 2000

Thesis directed by
Laurent R. Hourcle
Steven L. Schooner
Professors of Law

CONTENTS

TABLE OF CONTENTS	i
TABLE OF AUTHORITIES	iv
INTRODUCTION	1
CHAPTER 1: BACKGROUND	4
A. Resource Conservation and Recovery Act (RCRA) of 1976	4
1. Applicability of RCRA 6002	5
2. EPA-Designated Items	6
3. RCRA Affirmative Procurement Program	6
B. Executive Order 12873 – Federal Acquisition, Recycling, and Waste Prevention	8
1. Executive Order 12873’s Requirements	9
a. The Federal Environmental Executive	9
b. Agency Environmental Executive	10
2. Eight Factors to Consider	11
3. Reaffirmance of Affirmative Procurement Program	12
C. Federal Acquisition Regulation (FAR) Part 23 – Environment, Conservation, Occupational Safety, and Drug-Free Workplace	13
D. Executive Order 13101 – Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition	14
E. Pilot Projects	16
1. Cleaning Products Pilot Project	16
2. Pentagon Parking Lot Pilot Project	20
CHAPTER 2: BENEFITS OF BUYING “GREEN”	24
A. Avoids RCRA Violation	24
B. Common Criticisms and Misconceptions of “Green” Products	24
1. Retread Tires	24
2. Recycled Paper	25
C. Environmental Benefits	25
D. Economic Benefits	25
CHAPTER 3: GENERAL IMPLMENTATION	29
A. What is Environmentally Preferable Product?	29
B. Key Players	30
C. Responsibilities	31
1. Installation Commanders	31
2. Contracting	31
3. Civil Engineer	32
4. Legal	32
5. Public Affairs	32
D. Direction: Policy Directive	32
E. EPP Affirmative Procurement Program (APP)	34

1. Preference Program	34
2. Promotion Program	36
3. Certification Program	42
4. Monitoring Program	44
CHAPTER 4: SPECIFIC IMPLEMENTATION	46
A. No "One-Size-Fits-All" Approach	46
B. EPP Principles	46
C. EPA Designated Items	48
1. List of Designated Items: Mandatory Buy Requirements	48
2. Exemptions to Mandatory Buy Requirements	50
CHAPTER 5: GOVERNMENT CREDIT CARD	53
A. Suggested Training Approach	53
B. Advertising Claims	56
C. Documentation	57
CHAPTER 6: SUPPLY, SERVICES, AND CONSTRUCTION CONTRACTS	59
A. Identify Needs/Incorporate EPP Principles	59
B. Determine Environmental Attributes	60
C. Conduct Market Research/Survey	62
D. Draft/Adjust Solicitation	63
E. Methods of Procurement	65
1. Sealed Bidding	65
a. Responsiveness	65
b. Price and Price-Related Factors	66
c. Responsibility	71
2. Negotiated Procurement	76
F. Post Award	77
G. Automatic Substitution	77
CHAPTER 7: FUTURE TRENDS	80
A. FAR Revision	80
B. IMPAC Card Documentation	80
C. Price Differential	81
D. Grants/R&D	81
E. Enforcement	82
CHAPTER 8: CONCLUSION	83
APPENDIX A: Glossary	84
APPENDIX B: Installation's Commander's Policy Directive	86
APPENDIX C: Advanced Contracting Plan	87
APPENDIX D: Recovered Materials Determination Form	89
APPENDIX E: Sample EPA Designated Item List	91
APPENDIX F: Environmental Attributes	94

APPENDIX G: Approach on Use of Non-Governmental Entities to Implement Section 503 of Executive Order 13101	101
APPENDIX H: Sample Handout	109
APPENDIX I: Environmental Performance Evaluation Worksheet	110
APPENDIX J: Tools/Resources	111
APPENDIX K: Suggested Training Approach	113
APPENDIX L: SF Form 1403	116

TABLE OF AUTHORITIES

STATUTES

42 U.S.C. § 6002	passim
42 U.S.C. § 1004(17)	5
41 U.S.C. § 253(c)(1)	63
10 U.S.C. § 2304(c)(1)	63
18 U.S.C. § 1001	43
18 U.S.C. § 287	43

REGULATIONS

Requirements Supporting Procurement of Recycled Products and Environmentally Preferable Services, 65 Fed. Reg. 36,012 (2000)	14
65 Fed. Reg. 3070 (2000)	passim
Final Guidance on Environmentally Preferable Purchasing for Executive Agencies, 64 Fed. Reg. 45810, 45810-45811 (1999)	passim
Exec. Order No. 13101, 63 Fed. Reg. 49,641 (1998)	passim
Summary of Federal Trade Commission Guides for Use of Environmental Marketing Claims, 60 Fed. Reg. 50722, 50734 (1995)	56,57
Exec. Order No. 12873, 58 Fed. Reg. 54,911 (1993)	passim

29 C.F.R. § 1910.1200(g) (1997)	18
---------------------------------------	----

FAR 2.101	53
FAR 6.302	63
FAR 7.105(a)(4)	60
FAR 9.101	75
FAR 9.103(b)	71
FAR 9.104-2(a)	74
FAR 9.106-1(a)	75
FAR 9.407-1(b)(1)	72,73
FAR 9.403	72
FAR 14.101(e)	65
FAR 14.103-2(d)	65
FAR 14.209	66
FAR 14.301	65
FAR 14.404-1	66
FAR 15.304	76
FAR 23.4	13,14
FAR 23.405(c)	45
FAR 23.7	13,14
FAR 53.301-1403	75

<i>Compliance Assurance Pollution Prevention, AIR FORCE INSTRUCTION 32-7080</i> (forthcoming 2000)	30
<i>Environmental Compliance Assessment and Management Program,</i>	

AIR FORCE INSTRUCTION 32-7045 (1 Jul 1998)	46
<i>Environmental Budgeting</i> , AIR FORCE INSTRUCTION (9 May 1994)	41
<i>Environmental Protection Committees</i> , AIR FORCE INSTRUCTION 32-7005 (25 Feb. 1994)	30
<i>Pollution Prevention Program</i> , AIR FORCE INSTRUCTION 32-7080 (12 May 1994) ..	50

CASES

<i>Staber Indus., Inc.</i> , Comp. Gen. Dec. B-276077, 97-1 CPD ¶174 (1997)	67
<i>AT&T Corp.</i> , Comp. Gen. Dec. B-260447.4, 96-1 CPD ¶ 220	74
<i>National Recycling Council v. Reilly</i> , 884 F. 2d 1431 (D.C. Cir. 1989) <i>reh. den.</i> 890 F. 2d 1242 (1989)	68
<i>Sundstrand Corp.</i> , Comp. Gen. Dec. B-227038, 87-2 CPD ¶ 83	67
<i>Weldtest, Inc.</i> , Comp. Gen. B-216747.2, 84-2 CPD ¶ 612	74

GOVERNMENT DOCUMENTS

OFFICE OF THE FED. ENVTL. EXECUTIVE, GREENING THE GOVERNMENT: A REPORT TO THE PRESIDENT ON FEDERAL LEADERSHIP AND PROGRESS (2000)	9
GREENING THE GOVERNMENT: A GUIDE TO IMPLEMENTING EXECUTIVE ORDER 13101 (2000)	2,99
U.S. ENVTL. PROTECTION AGENCY, ENVIRONMENTAL FACT SHEET: EPA EXPANDS COMPREHENSIVE PROCUREMENT GUIDELINE (CPG) (2000)	29
Engineering Technical Letter (ETL) 00-1: EPA Guideline Items in Construction and Other Civil Engineering Specifications from Col Michael J. Cook, Director of Technical Support, <i>Headquarters Air Force Civil Engineer Support Agency</i> to Department of Defense and Special Interest Organizations (Jan. 5, 2000)	64
<i>Automatic Substitution – Increase Purchasing and Reduce Reporting</i> , CLOSING THE CIRCLE NEWS (U.S. Office of the Fed. Env'tl. Executive Winter 1999-2000)	78
<i>Giant Leap in Postconsumer Copier Paper Compliance</i> , CLOSING THE CIRCLE NEWS (U.S. Office of the Fed. Env'tl. Executive Winter 1999-2000)	25
<i>New "Green" Partnership</i> , CLOSING THE CIRCLE NEWS (U.S. Office of the Fed. Env'tl. Executive Spring 1999)	28
OFFICE OF THE FED. ENVTL. EXECUTIVE & OFFICE OF FED. PROCUREMENT POLICY, EXECUTIVE OFFICE OF THE PRESIDENT, RESOURCE CONSERVATION AND RECOVERY ACT: A REPORT ON AGENCIES' IMPLEMENTATION FOR FISCAL YEARS 1996 AND 1997, (1999)	1
ENVTL PROTECTION AGENCY, DEFENDING THE ENVIRONMENT AT THE DEPARTMENT OF DEFENSE – USING ENVIRONMENTALLY PREFERABLE PURCHASING PROCEDURES TO MAINTAIN THE PENTAGON AND	

OTHER DOD FACILITIES (1999)	20,77
ENVTL. PROTECTION AGENCY, DEFENDING THE ENVIRONMENT	
AT THE DEPARTMENT OF DEFENSE (1999)	44,64
FED. TRADE COMM'N, FACTS FOR CONSUMERS:	
SORTING OUT 'GREEN' ADVERTISING CLAIMS (1999)	57
AFCEE ENVTL. QUALITY DIRECTORATE, GUIDE TO GREEN PURCHASING:	
THE AIR FORCE AFFIRMATIVE PROCUREMENT PROGRAM (1999)	passim
<i>RCRA Section 6002 Inspections Are Heading Your Way!</i> ,	
CLOSING THE CIRCLE NEWS, (U.S. Office of the Fed.	
Envtl. Executive Fall 1999)	24
<i>Bridge Advances Recycled Plastic Lumber Market,</i>	
CLOSING THE CIRCLE NEWS (U.S. Office of the Fed.	
Envtl. Executive Winter 1998-99)	27
<i>Retread Tires: Army's Great New Alternative,</i>	
CLOSING THE CIRCLE NEWS (U.S. Office of the Fed.	
Envtl. Executive Winter 1998-99)	26
RADIAN INT'L LLC, <i>Affirmative Procurement Plan for Peterson AFB</i> (1998) ...	43,93
THE WHITE HOUSE TASK FORCE ON GREENING THE GOV'T THROUGH WASTE	
PREVENTION AND RECYCLING, RECYCLING FOR THE FUTURE:	
CONSIDER THE BENEFITS (1998)	26
<i>Recycled Copier Paper Compliance Double in FY 97,</i>	
CLOSING THE CIRCLE NEWS (U.S. Office of the Fed.	
Envtl. Executive 1998)	70
<i>The White House Closing the Circle Awards: 1999,</i>	
CLOSING THE CIRCLE NEWS (U.S. Office of the Fed.	
Envtl. Executive Fall 1998)	26
U.S. ENVTL. PROTECTION AGENCY,	
CLEANING PRODUCTS PILOT PROJECT (1997)	passim
GREENING THE GOVERNMENT:	
A GUIDE TO IMPLEMENTING EXECUTIVE ORDER 12873 (1996)	2
U.S. ENV'TL PROTECTION AGENCY, <i>EPP Credit Card Purchasing</i>	
< http://www.epa.gov/opptintr/epp/creditcard/htm >	55
<i>Benefits of Recycling, in</i> RECYCLING FOR THE FUTURE:	
IT'S EVERYBODY'S BUSINESS (on file with the White House Task Force	
on Greening the Government Through Waste Prevention and Recycling)	26

BOOKS

ARNOLD W. REITZE, JR., ENVIRONMENTAL LAW ENFORCEMENT (2000)	16,72
JOHN CIBINIC, JR. & RALPH C. NASH, JR.,	
FORMATION OF GOVERNMENT CONTRACTS (3 rd ed. 1998)	passim
WILLIAM SANDERS, ENVIRONMENTALLY PREFERABLE PURCHASING,	
IN GREEN PURCHASING, OPPORTUNITIES AND INNOVATION	
(Trevor Russel ed. 1998)	1
RALPH C. NASH JR. et al., THE GOVERNMENT CONTRACTS REFERENCE BOOK:	
A COMPREHENSIVE GUIDE TO THE LANGUAGE OF PROCUREMENT	
(2 nd ed. 1998)	passim

<i>Handling a Notice of Violation,</i> MILITARY COMMANDER AND THE LAW (4 th ed. 1998)	24
James Conrad, Buying "Green": Implementation of Environmentally-Sound Purchasing Requirements in the Department of Defense Procurements (1993) (unpublished thesis, George Washington University) (on file with the George Washington University Library)	passim
NAT'L CONTRACT MANAGEMENT ASS'N, SOCIOECONOMIC OBJECTIVES TRAINING MANUAL (1987)	47
 LAW REVIEW ARTICLES	
Steven L. Schooner & Neil S. Whiteman, <i>Purchase Cards and Micro-Purchases: Sacrificing Traditional United States Procurement Policies At the Altar of Efficiency</i> , 9 PUB. PROC. L. REV. 14 & n.28 (forthcoming 2000)	53
Major Mary E. Haney (USAF) et al., <i>Contract and Fiscal Law Developments of 1999: The Year in review: Special Topics: Environmental Contracting: Buying Green: The Trend continues</i> , 2000 ARMY LAW. 92 (2000)	46
Steven L. Schooner, <i>Pondering the Decline of Federal Government Contract Litigation in the United States</i> , 8 PUB. PROC. L. REV. 242 (1999)	58
Thomas Westphal, <i>Greening Procurement: An Attempt to Reduce Uncertainty</i> 8 PUB. PROC. L. R. 1 (1999)	3
Jennifer McCadney, <i>The Green Society? Leveraging the Government's Buying Powers to Create Markets for Recycled Products</i> , 29 PUB. CONT. L.J. 135 (1999)	4,10
 OTHER MATERIALS	
<i>Advanced Technology Program</i> , (visited Jun. 6, 2000) < http://www.ofee.gov/html/atp.htm >	82
Interview with Linda Mesaros, Chief of Staff of the White House Task Force on Recycling, in Washington, DC (Mar. 23, 2000)	81
President William Clinton, <i>Statement by the President on Protecting the Environment</i> < http://whitehouse.gov/uri- res/I2R?urn:pdi://oma.eop.gov.us/1998/9/15/1.header.1 >	1

Today I am pleased to sign an Executive Order strengthening federal efforts to protect the environment and promote economic growth through the purchase of recycled and other environmentally preferable products By redoubling our efforts to "green the government," we are demonstrating once again that the environment and the economy go hand in hand, and helping to promote a more sustainable future for America.

President Clinton
September 14, 1998¹

INTRODUCTION

Consumers play an important role in improving the environment through their purchasing power. By demanding certain products or items, consumers can send a signal to manufacturers and suppliers about what types of products and services to produce and supply. Accordingly, with the use of their wallets, they can leverage their buying power to create markets for environmentally friendly products and services that pose fewer burdens on the environment.²

The term "consumers" includes both public and private sectors, including individuals, private businesses, local, state and federal governments. One of the biggest consumers is the federal government, spending almost \$200 billion annually on a large variety of products and services.³ As a large consumer, the federal government can wield its purchasing power to influence manufacturers and suppliers to produce and supply

¹ President William Clinton, *Statement by the President on Protecting the Environment* <<http://whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/1998/9/15/1.header.1>>

² WILLIAM SANDERS, ENVIRONMENTALLY PREFERABLE PURCHASING, IN GREEN PURCHASING, OPPORTUNITIES AND INNOVATION 46, 46 (Trevor Russel ed. 1998).

³ OFFICE OF THE FED. ENVTL. EXECUTIVE & OFFICE OF FED. PROCUREMENT POLICY, EXECUTIVE OFFICE OF THE PRESIDENT, RESOURCE CONSERVATION AND RECOVERY ACT: A REPORT ON AGENCIES' IMPLEMENTATION FOR FISCAL YEARS 1996 AND 1997, 2 (1999). In Fiscal Year 1996, the federal government spent \$197,579,149. In Fiscal Year 1997, the federal government spent \$189,939,816.

products and services that will improve the environment while at the same time, creating "green" markets both for the public and private sectors.

The federal government is taking an environmental leadership role in buying "green" by recognizing its purchasing leverage. When President Clinton signed the Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition* on September 18, 1998,⁴ the federal government showed its commitment to "closing the loop"⁵ by requiring all federal agencies to purchase environmentally preferable products⁶ and reaffirming the commitment to buy products containing recycled materials. As part of the federal government, the United States Air Force (USAF) installations must comply with the Order's requirements.

This paper will serve as a "handbook" for USAF installations implementing "green" procurement. It first examines the Executive Order 13101's statutory and regulatory roots. Second, it highlights some of the pilot projects developed in buying environmentally preferable products. It then examines the benefits and dispels the criticisms of purchasing environmentally preferable products. Later, this paper presents

⁴ Exec. Order No. 13101, 63 Fed. Reg. 49,641 (1998).

⁵ See GREENING THE GOVERNMENT: A GUIDE TO IMPLEMENTING EXECUTIVE ORDER 13101 (2000) [hereinafter GREENING THE GOVERNMENT 13101]; see also GREENING THE GOVERNMENT: A GUIDE TO IMPLEMENTING EXECUTIVE ORDER 12873 (1996) [hereinafter GREENING THE GOVERNMENT 12873]. Successful recycling is a full-circle three-step process: (1) Collection, (2) Manufacturing, and (3) Reuse or Buying Recycled. In other words, buying recycled products encourages manufacturers to make more of them. The manufacturers then lowers the cost of recycled products when making more of them. Finally, when buying recycled, consumers close the recycling loop and ensure long-term survival and cost effectiveness of the recycling programs.

⁶ *Id.* "Environmental preferable products" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

guidance in implementation of Executive Order 13101, and particularly during the procurement process using the government credit card and the three types of government contracts: Supply, Services, and Construction. Finally, it explores future trends for the program.

CHAPTER 1. BACKGROUND

Executive Order 13101 expands the federal government's commitment to "greening" the government through recycling, buying recycled content, and purchasing environmentally preferable products.⁷ In order to understand Executive Order 13101, one must look at its history and background.

A. Resource Conservation and Recovery Act of 1976

Executive Order 13101 derives its legal authority from the Resource Conservation Recovery Act (RCRA) of 1976, as amended by the Solid Waste Disposal Act.⁸ More specifically, section 6002 of RCRA promotes federal procurement of recycled or recovered materials as a solution to the nation's rising solid-waste problem.⁹ To do that, the statute has to influence the creation of market for goods manufactured from environmentally friendly products and assist federal agencies in identifying and in purchasing those products.¹⁰ Accordingly, RCRA 6002 directs the Environmental Protection Agency (EPA) to "designate" products that can be made with or that contain recovered materials and to recommend practices to federal agencies for the purchase of

⁷ *Id.*

⁸ 42 U.S.C. § 6002.

⁹ *See Id.* § 205. "Recovered materials" means waste materials and by-products that have been recovered or diverted from solid waste, but such terms does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

¹⁰ *See* Jennifer McCadney, *The Green Society? Leveraging the Government's Buying Powers to Create Markets for Recycled Products*, 29 PUB. CONT. L. J. 135 (1999); *see also* James Conrad, *Buying "Green": Implementation of Environmentally-Sound Purchasing Requirements in the Department of Defense Procurements* (1993) (unpublished thesis, George Washington University) (on file with the George Washington University Library).

those products.¹¹ Further, the EPA must provide information as to the recovered materials' availability, price, and performance, as well as the level of recovered material to be contained in the procured product.¹²

1. Applicability of RCRA 6002

RCRA 6002 applies to the procuring agency.¹³ It defines "procuring agency" to mean any federal agency or any state and local government using appropriated federal funds for procurement or a government contractor.¹⁴ Therefore, the USAF, as part of the Department of Defense (DOD) agency, is always a procuring agency. Additionally, RCRA 6002 is triggered when a procuring agency purchases a procurement item¹⁵ exceeding \$10,000.00 or the quantity of such items or of functionally equivalent items purchased in the course of the preceding fiscal year was more than \$10,000.00.¹⁶ Thus, in calculating the \$10,000.00 threshold, USAF installations must consider the entire DOD. With the entire DOD under consideration, it is likely that the threshold is met. Accordingly, each USAF installation must comply with the RCRA 6002 requirement.

¹¹ 42 U.S.C. § 6002(e).

¹² *Id.*

¹³ *Id.* § 6002(a).

¹⁴ *Id.* § 1004(17).

¹⁵ "Procurement item" means any device, good, substance, material, product, or other item whether real or personal property which is the subject of any purchase, barter, or other exchange made to procure such item. *Id.* § 1004(16).

¹⁶ *Id.* § 6002(a).

2. EPA- Designated Items

EPA's designation of procurement items is a time-consuming process. EPA must consider (1) the availability of the item; (2) the impact of the procurement of those items by procuring agencies on the volume of solid waste which must be treated, stored, or disposed of; (3) the economic and technological feasibility of producing and using those items; and (4) the other uses for the recovered materials.¹⁷ Once EPA designates those items, the USAF shall procure such items composed of the highest percentage of recovered materials practicable.¹⁸ The USAF's decision not to purchase such items are limited to the following exceptions: (1) an unsatisfactory level of competition,¹⁹ (2) procurement items that are not reasonably available within a reasonable period of time, (3) procurement items that fail to meet performance standards,²⁰ and (4) procurement items that are only available at an unreasonable price.²¹

3. RCRA Affirmative Procurement Program

To overcome the institutional preference to virgin materials and to further the purchase of recovered materials, RCRA 6002 directs agencies to revise their procurement

¹⁷ *Id.* § 6002(e)(A)-(D).

¹⁸ *Id.* § 6002(c).

¹⁹ Lack of competition is not one of the specifically listed exceptions, but it is included under § 6002(c).

²⁰ The National Institute of Standards and Technology has the task of determining performance standard.

²¹ *Supra* note 18, § 6002(c)(1)(A)-(C).

specifications to eliminate exclusion of recovered materials and preference for virgin materials.²²

Finally, RCRA 6002 provides guidance to each procuring agency to develop an affirmative procurement program (APP) to ensure items composed of recovered materials are purchased to the maximum extent possible.²³ Each APP must contain (1) a preference program for recovered materials; (2) a promotion program to promote the preference program; (3) procedures to determine, certify, and verify percentage of recovered materials used in the performance of the contract; and, (4) annual review and monitoring of the APP.²⁴ In developing the preference program, the agency shall consider two of the statutorily listed options.²⁵ One is the Case-By-Case Development and the second comprises the Minimum Content Standards.²⁶ The former is “a policy of awarding contracts to the vendor offering an item composed of the highest percentage of recovered materials practicable.”²⁷ The latter requires the use of specifications containing minimum recovered material content that assures that the content required is the maximum available.²⁸ RCRA 6002 is further developed under the Executive Orders 12873 and 13101. Both expand and strengthen compliance with the RCRA provisions.

²² *Id.* § 6002(d).

²³ *Id.* § 6002(i).

²⁴ *Id.* § 6002(i)(2)(A)-(D).

²⁵ *Id.* § 6002(i)(3).

²⁶ *Id.* § 6002(i)(3)(A)-(B).

²⁷ *Id.*

²⁸ *Id.*

B. Executive Order 12873 – Federal Acquisition, Recycling, and Waste Prevention

RCRA 6002 was strengthened when President Clinton fulfilled his promise to sign executive orders directing federal agencies to take steps to reduce pollution.²⁹ One of

²⁹ See Conrad, *supra* note 10, at 127. The other Executive Orders signed to improve the environment are:

Exec. Order No. 12843, *Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances* directs federal agencies to change their procurement policies to reduce the use of ozone-depleting substances earlier than the 1995 phase-out deadline called for in the Montreal Protocol.

Exec. Order No. 12844, *Federal Use of Alternative-Fuelled Vehicles* places the federal government in a leadership role in the demand and use of alternative-fuelled vehicles, calling on each agency to adopt aggressive plans to exceed the purchase requirements of such vehicles established by the Energy Policy Act of 1992.

Exec. Order No. 12845, *Requiring Agencies to Purchase Energy-Efficient Computer Equipment* encourages market transformation through increased purchase of energy-efficient computer products that save money and reduce pollution.

Exec. Order No. 12856, *Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements* includes federal agencies in mandatory Toxic Release Inventory (TRI) reporting, which was originally restricted to manufacturers in the private sector.

Exec. Order No. 12873, *Federal Acquisition, Recycling and Waste Prevention* directs Executive Agencies to increase the purchase of products containing recovered materials and environmentally preferable products.

Exec. Order No. 12969, *Federal Acquisition and Community Right-to-Know* extends the reporting requirements under the Toxic Release Inventory to contractors who provide goods and services to federal agencies.

Exec. Order No. 12902, *Energy Efficient and Water Conservation at Federal Facilities* encourages increased use of energy- and water-saving products in federal facilities.

Exec. Order No. 13123, *Greening the Government Through Efficient Energy Management*. It strengthens and replaces several executive orders including Exec. Order Nos. 12902 and 12845. To obtain copies of the executive orders, visit www.pub.whitehouse.gov/search/executive_orders.html.

those orders was Executive Order 12873.³⁰ Although revoked by Executive Order 13101, Executive Order 12873 is important to understand because it was the first attempt to define a government-wide policy concerning federal acquisition of recycled content and environmentally preferable products.³¹

1. Executive Order 12873's Requirements

Executive Order 12873 required the "head of each Executive agency to incorporate waste prevention and recycling in the agency's daily operations and work to increase and expand markets for recovered materials through greater Federal Government preference and demand for such products."³² To expedite the implementation of this mandate, the Order created two agencies, the Federal Environmental Executive (FEE) and the Agency Environmental Executive (AEE).³³

- a. The Federal Environmental Executive

The FEE ensured that all agencies comply with the requirements of the Order and submit an annual report to the Office of Management and Budget (OMB) on the actions taken to comply with the requirements of this Order.³⁴ FEE's duties included (1) identifying and recommending initiatives for government-wide implementation; (2) collecting and electronically disseminating information concerning methods to reduce

³⁰ Exec. Order No. 12873, 58 Fed. Reg. 54,911 (1993).

³¹ See Exec. Order No. 13101.

³² Exec. Order No. 12873 § 101.

³³ See *id.* § 103.

³⁴ See *id.* § 301. The FEE submitted its first report on April 22, 2000 under Executive Order 13101. See OFFICE OF THE FED. ENVTL. EXECUTIVE, GREENING THE GOVERNMENT: A REPORT TO THE PRESIDENT ON FEDERAL LEADERSHIP AND PROGRESS (2000). The report is available at <<http://www.ofee.gov>>.

waste, materials that can be recycled, costs and savings, current markets of environmentally preferred products, or products that use recovered materials; and, (3) coordinating government-wide education and training programs.³⁵ To accomplish its duties, its staff had to include personnel who were experts in specification review, program requirements, procurement practices solid waste prevention, and recycling.³⁶

b. Agency Environmental Executive³⁷

Aside from standards and specification reviews, the AEE was responsible for coordinating all environmental programs of the agency in the areas of procurement and acquisition as well as waste prevention and recycling.³⁸ AEE solicited private participation to facilitate markets for environmentally preferable and recyclable products and services, promote new technologies, improve awareness about federal efforts, and expedite agency efforts to procure new identified products.³⁹ It also participated in the establishment of appropriate educational programs for agency employees.⁴⁰

³⁵ *Id.*

³⁶ *Id.* § 301(b).

³⁷ The DOD's AEE is Sherri Goodman, Deputy Under Secretary of Defense for Environmental Security, located at 3400 Defense Pentagon, Room 3E792, Washington, DC 20301-3400. For a list of other federal agency's AEE, visit <www.ofee.gov/html/aec.htm>.

³⁸ *See id.* § 302.

³⁹ *Id.*

⁴⁰ *Id.*

2. Eight Factors to Consider

One important aspect of the Order was the agency's requirement to consider eight factors in acquisition planning for all procurements and in the evaluation and award of contracts.⁴¹ Agencies had to consider (1) the elimination of virgin material requirements, (2) use of recovered materials,⁴² (3) reuse of product, (4) life cycle cost,⁴³ (5) recyclability,⁴⁴ (6) use of environmentally preferable products,⁴⁵ (7) waste prevention⁴⁶ (including toxicity reduction or elimination), and (8) ultimate disposal.⁴⁷ Therefore, the

⁴¹ *See id.* § 401.

⁴² "Recovered materials" means waste materials and by-products that have been recovered or diverted from solid waste, but such terms does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process. *See id.* § 205.

⁴³ "Life cycle cost" means the amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs and disposal costs discounted over the lifetime of the product. *See id.* § 210.

⁴⁴ "Recyclability" means the ability of a product or material to be recovered from, or otherwise diverted from, the solid waste stream for the purpose of recycling. *See id.* § 207. "Recycling" means the series of activities, including collection, separation, and processing, by which products and other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion. *See id.* § 207.

⁴⁵ "Environmental preferable products" means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. *See id.* § 201.

⁴⁶ "Waste prevention," also known as "source reduction," means any change in the design, manufacturing, purchase or use of materials or products (including packaging) to reduce their amount or toxicity before they become municipal solid waste. Waste prevention also refers to the reuse of products or materials.

⁴⁷ *See id.* § 401.

agencies should consider these factors in developing plans, drawings, work statements, specifications, or other product descriptions.⁴⁸

3. Reaffirmance of Affirmative Procurement Program

The Order also reaffirmed each agency's need to develop and implement the APP in compliance with RCRA 6002.⁴⁹ The APP should include all EPA designated items, which include the original five EPA designated guideline items.⁵⁰ They are (1) concrete and cement containing fly ash; (2) recycled paper products; (3) re-refined lubricating oil; (4) retread tires; and, (5) insulation containing recovered materials.⁵¹ The APP program required agencies to ensure that 100 percent of their purchases of products meet or exceed the EPA guideline standards unless the product was not available competitively within a reasonable time, did not meet requisite performance standards, or was only available at an unreasonable price.⁵² Furthermore, the Order clarified and explained the process of designating items that were or could be manufactured with recovered materials. Basically, the EPA instituted a new process for designating items by (1) issuing a Comprehensive Procurement Guideline (CPG) containing designated items and (2) publishing for public comment in the Recovered Material Advisory Notice (RMAN) regarding the range of recovered material content levels within which the designated

⁴⁸ *Id.*

⁴⁹ *See id* § 402.

⁵⁰ § 402(b).

⁵¹ *Id.*

⁵² *Id.*

recycled items were available.⁵³ While the range of recovered material content level was handled by RMAN, the Order gave the National Institute of Standards and Technology (NIST) the task of testing the performance of products containing recovered materials or environmentally preferable products.⁵⁴

An example of implementing the minimum content standard was the mandate for executive agencies to purchase printing and writing paper containing no less than 20 percent recovered materials.⁵⁵

C. FAR Part 23 – Environment, Conservation, Occupational Safety, and Drug-Free Workplace

After signing Executive Order 12873, the requirements of that Order and RCRA 6002 were added into the Federal Acquisition Regulations (FAR).⁵⁶ FAR Part 23 contains the same directions mandated by the Order and RCRA 6002.⁵⁷ It also provides FAR clauses

⁵³ *See id* § 502.

⁵⁴ *Id*; *See id* § 507.

⁵⁵ Exec. Order No. 12,873, *supra* note 29, § 504(a). As of December 31 1998, the required percentage of recovered material increased to 30 percent.

⁵⁶ The Federal Acquisition Regulation (FAR) is the primary set of regulations controlling all aspects of Federal Government procurement. The FAR applies to all federal agencies and is published in Chapter 1 of Title 48 of the Code of Federal Regulations (CFR). Agency supplements to the FAR are published in Chapters 2-63 of 48 CFR. . In this paper, citations to the FAR and agency FAR supplements will omit reference to the CFR and will identify the specific section in the FAR or agency FAR supplement. FAR 23.4; FAR 23.7.

⁵⁷ *Id*.

to insert in the solicitations.⁵⁸ However, it does not provide further information on how to specifically implement them.⁵⁹

D. Executive Order 13101 - Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition

As our landfills continue to overflow, requiring new landfills, we have to find ways to stop the continuous production of solid waste. Executive 13101 is a roadmap for this effort. Executive Order 13101 revises and updates Executive Order 12873 reflecting changes that have occurred since 1993. Significant changes in the new Order include establishment of the Steering Committee on Greening the Government Through Waste Prevention and Recycling (Steering Committee),⁶⁰ a requirement for a strategic plan for the agency's procurement practices to be developed by the Steering Committee to guide its procurements,⁶¹ more defined duties for the FEE⁶² and the AEE,⁶³ and more emphasis

⁵⁸ See *Id.*; see also FAR Part 52.

⁵⁹ The modification of FAR Part 23 will take effect on 7 Aug 2000. The modification reorganizes and revises Subpart 23.4, *Use of Recovered Materials* and Subpart 23.7, *Contracting for Environmentally Preferable and Energy-Efficient Products and Services*. The modification streamlines these Subparts to make the text easier to use and understand. However, the modification generally parrots RCRA 6002 and Executive Order 13101. There are other revisions made to the FAR, which includes FAR Subparts 7.1, 11.3 and Part 13. Requirements Supporting Procurement of Recycled Products and Environmentally Preferable Services, 65 Fed. Reg. 36,012 (2000).

⁶⁰ The Steering Committee is in charge of implementing the new Executive Order and providing to the Task Force on Greening the Government Through Waste Prevention and Recycling. Exec. Order No. 13,101 § 301.

⁶¹ The Strategic Plan is to provide a vision and long-term guidance to federal agencies concerning the new Executive Order's implementation. See *id.* § 302(a)(1).

⁶² The FEE expansion of duties includes the development of the Strategic Plan. *Id.*

⁶³ The AEE expansion of duties includes the "translation" of the Strategic Plan into specific agency plans and implementation of them. See *id.* § 302(b).

on pollution prevention.⁶⁴ In short, it is much broader, but reaffirms the requirements concerning acquisition planning, procurement, and compliance previously established by Executive Order 12873.

The new Order still mandates the development of APP pursuant to RCRA, but the agencies are required to assign responsibility for the “preparation, implementation, and monitoring” of those programs between the program personnel and acquisition and procurement personnel.⁶⁵ The new Order further improves the federal government’s use of recycled-content products and expands the APP to include other environmentally preferable products and services. Regarding product descriptions for acquisition planning purposes, the factors are similar to the previous Order except it adds the use of biobased products.⁶⁶ Moreover, the new Order continues to require EPA to designate guidelines for items⁶⁷ that contain recovered materials to be published in the CPG, along with RMAN that presents the range of recovered material content levels of currently available items.⁶⁸

As EPA develops the criteria, all agencies are required to adjust procurement specifications in order to maximize environmental benefits.⁶⁹ EPA shall also prepare

⁶⁴ See *id* § 101.

⁶⁵ See *id* § 402(a).

⁶⁶ See *id* § 401. “Biobased products” means a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials. See *id* § 213.

⁶⁷ There are currently 54 EPA CPG designated Items. See *infra* note 157 for a list of the items. See also 65 Fed. Reg. 3070 (2000).

⁶⁸ See Exec. Order No. 13101 § 502.

⁶⁹ See *id* § 501.

guidance for determining federal facility compliance with section 6002 of RCRA.⁷⁰

Compliance is monitored by means of “multi-media” inspections⁷¹ conducted pursuant to RCRA 6002, which are to include an evaluation whether a federal facility has complied with section 6002 and any implementing guidance.⁷² Moreover, the new Order directs agencies to establish immediately pilot programs to test the guidance’s principles and concepts.⁷³

E. Pilot Projects

1. Cleaning Products Pilot Projects

The Cleaning Products Pilot Project is the first pilot project developed by EPA to demonstrate how environmental considerations can be successfully incorporated into purchasing decisions.⁷⁴ The pilot project is a cooperative effort between the General Service Administration (GSA) and the EPA to make it easy for government purchasers to select a cleaning product based on local environmental needs. GSA and EPA developed a matrix as a tool for government purchasers to compare cleaning products on the basis of

⁷⁰ *See id* § 403.

⁷¹ “Multi-media” inspections target geographic areas, pollutants of concern, industries, companies, or facilities with poor compliance histories from enforcement efforts involving multiple programs or media. ARNOLD W. REITZE, JR., ENVIRONMENTAL LAW ENFORCEMENT 14 (2000).

⁷² *See* Exec. Order No. 13101 § 403(b).

⁷³ *See id* § 503(b).

⁷⁴ U.S. ENVTL. PROTECTION AGENCY, CLEANING PRODUCTS PILOT PROJECT (1997) [hereinafter CLEANING PRODUCTS].

their environmental attributes.⁷⁵ With this pilot project, federal building are getting cleaned and “greened.”

Even before the signing of Executive Order 12873, GSA and EPA began their cooperative effort of developing a list of environmentally preferable cleaning products. But first, they needed to develop characteristics or attributes that could be used to identify environmentally preferable cleaning products. The original characteristics or attributes were packaging and source reduction; impact to human health, air, and water; and disposal. They also examined the life cycle impacts of cleaning products through life cycle assessment.⁷⁶ However, they realized that a complete life cycle assessment would be difficult because of time constraints and the extent of the process. Nevertheless, they concentrated on one aspect of life cycle impact, the product use.⁷⁷

To further develop the list of environmentally preferable cleaning products, EPA and GSA received participation from numerous commercial cleaning stakeholders, including manufacturers, vendors, and commercial janitorial companies to help identify cleaning product attributes.⁷⁸

⁷⁵ *Id.* at 10.

⁷⁶ Life cycle assessment (LCA) is a process for evaluating the environmental burdens associated with a product, process, or activity. LCAs identify and quantify energy and material uses and releases to the environment. The assessment covers the entire life-cycle of the product, process, or activity, including extracting and processing the raw materials; manufacturing, transporting, and distributing the product; product use, reuse, and maintenance; recycling; and, final disposition. *See id.* at 2.

⁷⁷ *See id.*

⁷⁸ Those stakeholders included 3M; Abel Industries, Inc.; AFL-CIO; Amway Corp.; Buckeye International; Chemical Manufacturers Assn.; Chemical Specialties Manufacturers Assn.; Cotto-Waxo Co.; Earth Friendly Products; Ecolab; Environmental Choice Program (Canada); Fragrance Material Assn.; Gotham Building Maintenance; Green Seal; Hillgard Industries; International Sanitary Supply Assn.; L&F Products;

Based on this involvement, GSA and EPA conducted a small-scale pilot project in a Philadelphia Federal Courthouse Building to further identify and define the cleaning products' environmental attributes.⁷⁹ Using nineteen cleaning products -- including all-purpose cleaners, glass and toilet bowl cleaners, disinfectants, and degreasers -- GSA and EPA examined their effects to the performance, human health, and environmental safety.⁸⁰ Then, EPA and GSA initiated a risk management assessment of the nineteen products as another method of selecting and evaluating the environmental attributes. To conduct the RM1, EPA and GSA encouraged manufacturers to voluntarily provide product formulation data, but this approach was not uniformly successful. Consequently, the risk management assessment was primarily on publicly available information derived from Material Safety Data Sheet (MSDS)⁸¹ and product literature.⁸² The specific attributes developed were as follows: (1) irritation potential, (2) chronic health risks, (3) time to ultimate biodegradation, (4) bioconcentration factor, (5) percentage of volatile organic compounds (VOCs), (6) amount of product packaging, (7) presence of ozone

National Aerosol Assn.; Ossian, Inc.; Procter and Gamble; Rochester Midland; SC Johnson & Son; Service Employees International Union; Soap and Detergent Assn.; Sunshine Makers; Vista Chemical Company; and, the Washington Toxics Coalition. *See id.* at 3.

⁷⁹ *See id.*

⁸⁰ *Id.*

⁸¹ MSDS identifies any hazardous materials used in a product and outline proper safety precautions. A MSDS content is described in 29 C.F.R. § 1910.1200(g) (1997).

⁸² *See* CLEANING PRODUCTS, *supra* note 74, at 6.

depleters, (8) potential exposure to the concentrated cleaning solution, (9) flammability, (10) presence of cosmetic additives, and (11) energy needs.⁸³

However, EPA shortened these attributes because of limitations encountered while conducting comparative assessment. As a result, EPA narrowed the list of environmental attributes that could be used to identify environmentally preferable cleaning products to (1) skin irritation factors, (2) bioconcentration factors, (3) VOC concentration, (4) product packaging, (5) use of cosmetic additives (fragrance and dye), and (6) the likelihood of concentrate exposure.⁸⁴

Since EPA identified the environmental attributes, the next issue was how to distribute the information to government purchasers. The two methods were the “green dot” method and the matrix method. The “green dot” method involves establishing thresholds for each environmental attribute. If a product meets this threshold, it is placed in a list of “green” cleaning products or is identified by a “green dot.” The other method provides government purchasers with selected environmental attribute information in a matrix and allows them to decide which products meet their environmental needs.⁸⁵

The debate concerning which method to use ensued. However, the final approach was to combine both methods. Products that meet the thresholds as environmentally preferable are identified with green dots and the seven specific environmental attributes are then listed in a matrix, which allow consumers further information for comparing

⁸³ *Id.*

⁸⁴ *See id.*

⁸⁵ *Id.*

products based on environmental attributes. Suppliers of the products can voluntarily contribute additional information besides the seven attributes in the matrix.⁸⁶

GSA has published this method in its *Commercial Cleaning Supplies* catalog. It contains hundreds of commercially available cleaning products. Following publication of the original environmental attribute matrix in February 1996, more than 60 manufacturers and suppliers contacted GSA asking to be included in future matrix updates. The updated matrix includes the National Stock Numbers for each product, thus making ordering easier for government purchasers.⁸⁷

2. Pentagon Parking Lot Pilot Project

While the Cleaning Product Pilot Project assists government purchasers in identifying environmentally preferable cleaning products through the development of a matrix, the Pentagon Parking Lot Pilot Project incorporates the environmental preferable product mandate through the contracting process. This DOD Pilot Project contract is one of the first contracts to incorporate environmentally preferable purchasing.⁸⁸

In response to Executive Order 12873 -- before being revoked by Executive Order 13101 -- the Department of Defense (DOD) approached EPA for assistance in developing a maintenance and repair contract for the DOD parking lots and access roads at the Pentagon, the Court of Appeals of the Armed Forces, the Federal Office Building (the Navy Annex), and the Hybla Valley Federal Building. DOD's initial intention was to

⁸⁶ *Id.*

⁸⁷ *Id.* Call 1-800 241-7246 to request the most recent catalog.

⁸⁸ ENVTL PROTECTION AGENCY, DEFENDING THE ENVIRONMENT AT THE DEPARTMENT OF DEFENSE -- USING ENVIRONMENTALLY PREFERABLE PURCHASING PROCEDURES TO MAINTAIN THE PENTAGON AND OTHER DOD FACILITIES (1999) [hereinafter MAINTAIN THE PENTAGON].

obtain a list of environmental preferable products similar to the lists of recovered material content identified in the CPG. Finding that no list existed, DOD attempted to use lifecycle assessment; but it too was not useful. DOD again approached EPA's Environmentally Preferable Purchasing Program for assistance in turning the project into an environmentally preferable purchasing pilot project.⁸⁹

The process starts with developing a framework and a mechanism to achieve a successful project. DOD and EPA [*hereinafter* "the team"] determined that the products used in the contract must meet all government specifications, be available in affordable price, reduce environmental and impacts to human health, and easy to implement. They also agreed that it should be easy to implement. They also wanted to design the project to ease the incorporation of the lessons learned into future construction projects. With that framework in mind, they ruled out using existing product specification for similar contracts. Although this "cut and paste" approach saves time, it is inflexible and inhibits innovations because they are drafted without EPP considerations. They also decided against the use of an independent labeling organizations to identify and approve products with environmental attributes, primarily because they felt they should make the final decision on product selection rather than delegating it to an outside firm.⁹⁰

After examining all the options, DOD and EPA decided to use a three-step mechanism for incorporating EPP without using the approved product list and without relying on

⁸⁹ *Id.*

⁹⁰ *Id.*

outside firms while allowing the contract to be easily modified to include the latest environmental attributes.⁹¹

First, contractors were required to include previous environmental performance information and a plan for obtaining products with environmental attributes in their proposals. Both of these factors were included as part of DOD's evaluation process. Second, the team identified attributes that can be used under the contract. The team did not identify all of the possible environmental attributes for every product, but instead provided an overview of currently available ("baseline") attributes. Third, the team developed price differentials as an incentive for the contractor to use products that meet or exceed the baseline attributes. The contractor can also propose to use products or construction practices with an additional environmental attributes or improved environmental performance. With DOD approval, the contractor can use the new product or practice and is eligible to receive a price differential for doing so.⁹²

To put this process into action, the team identified those baseline attributes. The team focused on the most frequently used products to conduct product research. They selected 20 product categories, which represented approximately 90 percent of the materials used under the contract. Using publicly available information sources and product surveys, the team identified manufacturers and suppliers. The team then gathered important information about applicable American Society for Testing and Materials specifications, VOC content, MSDS, and other product-specific environmental attributes. DOD sent the surveys to manufacturers and suppliers previously identified and included copies of the operational requirements for each product category. DOD asked them to identify the environmental attributes of products meeting the requirements and to explain why the attributes were environmentally preferable.⁹³

⁹¹ *Id.*

⁹² *Id.* at 6.

⁹³ *Id.*

Based on the information gathered, the team identified attributes for 11 of the 20 product categories. The contractor could suggest additional attributes, products, or process for any of the product categories including the original 20 based on an emerging technology or market research. The inherent flexibility of the contract made this possible. The contractor is then eligible to receive a price differential for identifying a new attribute, product, or process if DOD permits its use on the project.⁹⁴

To determine whether the products used to complete the work comply with all of the appropriate operational and performance specification, and whether the product improves environmental performance, the team developed worksheets that contractors must submit.⁹⁵

The contract allows both DOD and the contractor to introduce new environmental attributes. DOD can modify the contract to raise the product's environmental standards by moving an attribute from a voluntary to the mandatory category. If so, the contractor must provide products that meet those mandatory requirements and is not eligible for a price differential. However, the contractor can also introduce new environmental attributes at any time, which can qualify for a price differential.⁹⁶ This mechanism encourages the contractor to continually search for products with additional environmental attributes. In short, the process benefits both DOD and contractors while at the same time benefiting the environment through the continuous search for environmentally preferable products.

⁹⁴ *Id.*

⁹⁵ *Id.* a copy of the worksheets is located in the Appendix I.

⁹⁶ *Id.*

CHAPTER 2: BENEFITS OF BUYING GREEN

In this chapter, it will dispel the common misconceptions or criticisms of buying “green” products or services. It also discusses the environmental and economic benefits of buying “green” products and services.

A. Avoids RCRA Violation

The obvious “benefit” of buying “green” is it avoids violation of RCRA 6002. Although federal facilities are not subject to fines and penalties for noncompliance of RCRA 6002, federal facilities are still subject to a notice of violation (NOV)⁹⁷ and a citizen suit under RCRA 7002.⁹⁸ As most military members know, a NOV is considered a “death knell” to the installation, especially to installation commanders.

Besides the law requiring federal agencies, like the USAF, to buy green, why buy green at all? There are basically two reasons: (1) environmental benefits and (2) economic benefits. Of course, the other side of the coin is the criticisms of buying green. Let us first address these criticisms.

B. Common Criticisms and Misconceptions of “Green” Products

1. Retread Tires

The common criticisms are the poor quality, the high cost, and unavailability of green products. One example is retread tires. People tend to point at broken tires along our road and automatically blamed them due to retread tires. While these may be true over

⁹⁷ A Notice of Violation is an administrative action used by the federal or state regulatory agency that provides a formal warning letter for the noncompliance. *See* RCRA 6001. *See also Handling a Notice of Violation*, MILITARY COMMANDER AND THE LAW 583, (4 ed. 1998).

⁹⁸ *RCRA Section 6002 Inspections Are Heading Your Way!*, CLOSING the CIRCLE NEWS, at 3 (U.S. Office of the Fed. Env'tl. Executive Fall 1999).

twenty-five years ago, modern retread tires are of equal quality with non-retreaded tires.⁹⁹ Both tires perform equally well.¹⁰⁰ Aside from being required by law, if retread tires are unsafe and of such poor quality, then why are they routinely used (availability) by school buses, commercial aircraft, fire and other emergency vehicles and by millions of passenger cars and trucks?¹⁰¹ Finally, retread tires costs between one third to one half less than new tires. This amounts to almost \$2 billion in savings each year to tire consumers.¹⁰²

2. Recycled Paper

Another example of the federal government's "green" efforts deals with its purchase of recycled paper. Similar to retread tires, consumers considered recycle paper of low quality. However, since 1993, when President signed Executive Order 12873, federal agencies were 98 percent compliant with purchasing recycled paper in 1999.¹⁰³

C. Environmental Benefits

One improvement to consider is the benefits to our environment. Buying green or "closing the loop" conserve resources and energy. It also reduces the disposal of recyclable materials. More specifically, by recycling 35% of our trash, we can (1) conserve enough landfill space to serve the combined cities of Dallas 92 times over, (2)

⁹⁹ GREENING THE GOVERNMENT 13101, *supra* note 5, at 64.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.*

¹⁰³ *Giant Leap in Postconsumer Copier Paper Compliance*, CLOSING THE CIRCLE NEWS, at 1 (U.S. Office of the Fed. Env'tl. Executive Winter 1999-2000).

save enough energy to fuel 6 million homes annually, (3) generate \$5.2 billion in raw materials for the economy every year, (4) expand recycling above the current \$100 billion and 1 million jobs in the American economy, (5) reduce global warming emissions equivalent to taking 36 million cars off the road, (6) stimulate exciting new products and technologies, and (7) conserve our precious natural resources instead of relying on non-renewable resources to supply 94% of the economy's needs.¹⁰⁴

D. Economic Benefits

Another positive aspect of buying green is its economic benefits, including creating new markets, saving money, and creating new jobs. For their tactical vehicles, the Army began to purchase retread tires rather than new tires, which must satisfy quality standards, such as safety, performance, and production of consistent, high quality retread.¹⁰⁵ As a result, the Army earned an average of 51 percent savings.¹⁰⁶ Because of the success of this procurement program, the Army will be adding radial, truck, and heavy equipment tactical tires to the program.¹⁰⁷

Buying green also spurs businesses to develop new and innovative technologies and products. A good example is recycled plastic lumber. It uses low-cost materials such as

¹⁰⁴ *Benefits of Recycling, in* RECYCLING FOR THE FUTURE: IT'S EVERYBODY'S BUSINESS (on file with the White House Task Force on Greening the Government Through Waste Prevention and Recycling). *See also*, THE WHITE HOUSE TASK FORCE ON GREENING THE GOV'T THROUGH WASTE PREVENTION AND RECYCLING, RECYCLING FOR THE FUTURE: CONSIDER THE BENEFITS (1998). It is also available at <<http://www.wafee.gov/html/future/pdf>>.

¹⁰⁵ *Retread Tires: Army's Great New Alternative*, CLOSING THE CIRCLE NEWS, at 5 (U.S. Office of the Fed. Env'tl. Executive Winter 1998-99).

¹⁰⁶ *Id.*

¹⁰⁷ *Id.*

wood chips or saw dust and plastic grocery bags.¹⁰⁸ Unlike wood products or wood structures, plastic lumber requires no wood treatment or periodic maintenance using coatings that have preservatives, which can release volatile organic compound (VOC) into the atmosphere.¹⁰⁹ Plastic lumbers resist warping and decay, and require limited upkeep. At Fort Leonard Wood, Illinois, a bridge was built with plastic lumber and represented the reuse of 13,000 pounds of mixed plastics that could have ended up in landfills.¹¹⁰ Bridges made with chemically treated wood were estimated to last about 15 years or 5 years if untreated if they were exposed to the same climate and frequency of use at Fort Leonard Wood.¹¹¹ On the other hand, the plastic lumber bridge was projected to have “a 50-year, maintenance-free service life, except for repainting of the steel supports.”¹¹² Diverting waste plastics to beneficial use has tremendous potential, especially in construction projects.¹¹³

Another example involved a simple decision by one man who was looking for ways to improve the environment. Rick Krska, the president of Lasercycle – a company which refills and remanufactures inkjets and toner cartridges – switched its \$5 million merchandise collection and product distribution business to the United States Postal

¹⁰⁸ *Bridge Advances Recycled Plastic Lumber Market*, CLOSING THE CIRCLE NEWS, at 7 (U.S. Office of the Fed. Env'tl. Executive Winter 1998-99).

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ *Id.*

Service.¹¹⁴ As a result, toners and cartridges that could have ended up in landfills were collected in an economically safe manner.¹¹⁵ Further, Lasercycle was able to sell inkjet and toner cartridges at price that were 30 to 50 percent of a new product made from virgin material.¹¹⁶ Lasercycle pays for postage both ways.¹¹⁷ The process conserves energy and natural resources.¹¹⁸ It also supports new job growth and they are doing so in the environmentally preferable method – by mail.¹¹⁹

If one person can make a difference in improving the environment while at the same time help create market for green products, imagine what difference an entire Air Force agency can contribute. To do so, the Air Force must procure EPA designated items and adjust solicitation to maximize the purchase of recovered materials and environmentally preferable products whenever possible to be in compliance with the affirmative procurement regulations and policies.

¹¹⁴ *New "Green" Partnership*, CLOSING THE CIRCLE NEWS, at 5 (U.S. Office of the Fed. Env'tl. Executive Spring 1999).

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

¹¹⁹ *Id.*

CHAPTER 3: GENERAL IMPLEMENTATION

This chapter provides a general overview of executing the requirements of buying environmentally preferable product. It identifies environmentally preferable products, it designates key players, and it provides a framework for the execution of the EPP program.

A. What is an Environmentally Preferable Product?

All installation purchasers must understand the concept of environmentally preferable product (EPP). EPP and “recycled product” are used interchangeably, but they are not the same. Although both products are safe for the environment, recycled products consist of only a single attribute: recycled-material content.¹²⁰ EPP, on the other hand, *normally* entails many attributes that are better for the environment, which may or may not include recycled-material content of a product.¹²¹ For example, these many attributes include products with less toxicity, less packaging, and recycled content. They also may include only less toxicity and less packaging. Thus, EPP does not necessarily imply recycled content, but recycled-content product is always an attribute of an environmentally preferable product.¹²²

¹²⁰ See Final Guidance on Environmentally Preferable Purchasing for Executive Agencies, 64 Fed. Reg. 45810, 45810-45811 (1999) [hereinafter Final Guidance]. See also, U.S. ENVTL. PROTECTION AGENCY, ENVIRONMENTAL FACT SHEET: EPA EXPANDS COMPREHENSIVE PROCUREMENT GUIDELINE (CPG) (2000) [hereinafter CPG].

¹²¹ *Id.*

¹²² For purposes of this paper, EPP includes recycled-content products unless stated otherwise.

Furthermore, EPP is not limited to the product itself. It also pertains to the process of making such product.¹²³ For example, if the process can save energy, or reduce water or air pollution, that process is considered environmentally preferable. Thus, EPP includes environmentally preferable practices as well.¹²⁴

B. Key Players

The installation commanders and senior commanders are the key players in implementing the purchase of environmentally preferable and recycled-content products. Other key players include an Affirmative Procurement Team and the program managers or users. At a minimum, an Affirmative Procurement Team should include the contracting, civil engineering, legal, and public affairs offices. The proposed AFI 32-7080, *Compliance Assurance and Pollution Prevention Program*, expands these team players to include the Environmental Protection Committee (EPC),¹²⁵ Logistical Group, Medical Group, and Safety.¹²⁶ In short, execution of the EPP is the responsibility of many organizations and requires interdisciplinary approach.

¹²³ See Final Guidance, *supra* note 120.

¹²⁴ *Id.*

¹²⁵ Environmental Protection Committee (EPC) is the group responsible for achieving and maintaining environmental quality in the Air Force. EPC is normally composed of organizations mentioned in the EPP Affirmative Procurement Team. See *Environmental Protection Committees*, AIR FORCE INSTRUCTION 32-7005 (25 Feb. 1994).

¹²⁶ *Compliance Assurance Pollution Prevention*, AIR FORCE INSTRUCTION 32-7080, 4.25.11 (forthcoming 2000). To access Air Force Instructions (AFI) in the Internet, visit <<http://afpubs.hq.af.mil>>.

C. Responsibilities:

1. Installation Commander

As with most environmental programs, the person having the overall responsibility for implementing an EPP affirmative procurement program is the installation commander. Thus, the installation commander is ultimately responsible for compliance. Accordingly, the installation commander must stress to the installation personnel the importance of the program and play an active role. This does not mean the installation commander should be ever present; rather, the installation commander should understand and support the program, and participate as much as possible.

2. Contracting

Contracting squadrons support pollution prevention through centralized and decentralized procurement actions. They need to ensure that contract solicitations comply with EPP principles. This includes acquiring EPA-designated items for their customers. Provided their customers cannot purchase EPA-designated items, the contracting squadrons also assist their customers in developing the written justification for purchasing noncompliant items. However, a strong program will help eliminate the need for such exemptions.

With the popularity of government credit card use, contracting officers have a greater role in decentralized procurement. Contracting squadrons should provide EPP procurement training to holders of government credit cards, also known as International Merchant Purchase Authorization Card (IMPAC). They should also conduct an annual review of cardholders' activities to ensure they follow the correct procedures.

3. Civil Engineering

Civil engineering, more precisely the base environmental management function, should provide input concerning EPP procurement requirements when necessary. The environmental management function spearheads the EPP APP. As the team leader, it identifies specific opportunities for purchasing compliant products for all EPA-designated items. Just as the contracting office is the leader in educating IMPAC cardholders about EPP, the environmental management function is the leader in educating base personnel and providing program publicity about EPP.

4. Legal

As a team member, judge advocates and other procurement attorneys must promote a teamwork approach to ensure the success of EPP program. When conducting reviews at the different stages of the procurement actions, judge advocates and other procurement attorneys should keep in mind the EPP requirements.

5. Public Affairs

Public affairs offices provide a conduit for other Affirmative Procurement team to educate base personnel. They also support the team to disseminate information and spread more publicity about EPP.

D. Direction: Policy Directive

Now that a team has been formed, the next step is for the team to have a direction with which all base personnel should comply. The installation commander must declare that direction. To do that, he should sign a policy directive supporting the installation's commitment to the EPP program. The policy directive should dictate that all base employees – including military, civilian and federal contractors – have the responsibility

to abide by the EPP program. The directive should include a commitment to integrate EPP principles into its day-to-day operations, including a commitment to purchase EPA designated items, a commitment to maximize the purchase of other green product, and to encourage innovation and creativity in buying EPP. The directive should also include the following statement and commitment:¹²⁷

Overall Statement Policy:

1. Members of [Name of the Installation] should seek to reduce the environmental damages associated with their purchases by increasing their acquisition of environmentally preferable products and services to the extent feasible, consistent with price, performance, and availability.

Environmentally preferable products refers to products or services that have reduced effect on human health or the environment when compared with competing products or services that serve the same purpose.
2. Environmental factors should be taken into account as early as possible in the acquisition planning and decision making-process.
3. Responsibility for environmentally preferable purchasing should be shared among the program, acquisition, and procurement personnel.
4. Environmentally preferable purchasing represents one important component of this installation's commitment to pollution prevention and reduction.

Commitment:

1. Increasing the acquisition of environmentally preferable products and services.

¹²⁷ Final Guidance, *supra* note 120, 45812.

2. Identifying and implementing pilot projects to test the best ways to incorporate environmentally preferability into acquisition.
3. Establishing incentive and award programs to recognize those people, teams, and interagency work groups who are most successful at promoting the purchase of environmentally preferable products.

At Appendix B is a sample Installation Commander's Environmentally Preferable Purchasing Policy Directive.

E. EPP Affirmative Procurement Program (APP)

With such direction in place, the team should have a framework for executing the EPP APP. RCRA has already provided that framework.¹²⁸ However, the RCRA framework has only recovered materials (recycled content) in its scope. Nevertheless, the same framework is applicable for both recycled content and environmentally preferable products. The framework consists of four elements. They are a preference program, a promotion program, a certification program, and a monitoring program.¹²⁹

1. Preference Program

Preference for EPP and Recycled-Content Products. The preference program demonstrates that the installation has a preference for recycled products meeting EPA standards for recycled content and a preference for environmentally preferable products and services.

¹²⁸ *Supra*, note 24.

¹²⁹ *Supra*, note 25. For more discussion about Affirmative Procurement, but limited to recycled content products, see AFCEE ENVTL. QUALITY DIRECTORATE, GUIDE TO GREEN PURCHASING: THE AIR FORCE AFFIRMATIVE PROCUREMENT PROGRAM (1999) [hereinafter AFCEE].

Obtaining Support. The preference program includes the Affirmative Procurement team obtaining the support from the installation commander. This is accomplished by establishing a written policy directive mentioned earlier. The team should also gain support from other organizational commanders of the installation, especially unit squadron commanders when they deal with government credit cards (IMPAC). Air Force squadron commanders are the approval authority for invoking the exemption to buy non-EPA-designated items.¹³⁰

EPA-Designated Items. Although couched under the term “preference,” contracting squadrons, IMPAC cardholders, and other installation purchasers must buy EPA-Designated Items – also known as Comprehensive Procurement Guideline (CPG) Items or guideline items -- whenever available unless they provide proper justification for the exemptions.¹³¹ EPA-designated items are part of an effort to promote the use of materials from solid waste. Buying recycled-content products ensures that the materials collected in recycling programs will be reused in the manufacture of new products.

Early Consideration of EPP. During acquisition planning, procurement personnel should consider affirmative procurement at the early stages of procurement actions.¹³² This begins when the requiring activities first identify their needs. The requiring activities must draft specifications or review and modify pre-existing specifications to incorporate the preference for recovered material and other EPP.

¹³⁰ See *infra*, note 157; see also *supra* note 67.

¹³¹ *Supra*, note 4, § 402(c).

¹³² Final Guidance, *supra* note 120.

2. Promotion Program

Preference for EPP and recycled products will not mean much unless all affected personnel are aware of the program. Therefore, a promotion program is required. The installation's promotion program educates its personnel, including vendors and contractors. The program should actively promote the EPP APP by using the following activities to raise employees, vendors, and contractors' awareness:

a. Raising Employee Awareness

(A). The EPP Affirmative Procurement team distributes the installation commander's policy directives to the installation's organizations. The installation may also post such directive in the installation's Intranet and Internet.

(B). The team conducts training or workshop sessions to educate the employees about their responsibilities under EPP APP. The training should include the following:

(1). Definitions of terms and their examples. For instance, after defining a recovered material, the training should include showing employees products that fit the definition of recovered material.

(2). Identify the benefits of buying EPP by dispelling the common misconception of EPP products, by emphasizing the legal requirements of compliance, and by providing success stories.

(3). Explain the EPP Affirmative Procurement Program to show how it works so that everybody can comply with its requirements.

(4). Provide examples of procuring an EPP product and steps to take in considering EPP. See Chapters 4 through 6.

(5). Provide resources, tools, and points of contact to help installation purchasers practice what they have learned. A suggested approach in EPP training is available at Appendix K.¹³³

(C). The team develops a fact sheet, a short brochure, or a similar handout to familiarize all affected purchasers in the installation with EPP APP requirements. A handout should give a general description of the Affirmative Procurement Program, its requirements, available resources, and points of contact. A sample is provided in Appendix H or visit <http://www.afcee.brooks.af.mil/eq/app/epp/brochure.pdf> for a sample brochure. The team can present this information during Commander's Call, newcomer's orientation briefings, Earth Day activities, and other appropriate forums.

(D). Publish articles in the base newspapers. In addition, as organizational newsletters have become more popular, each organization can publish articles there too. In the article, one could explain the program and seek the installation's support. Remind the audience that this is not just the installation commander's program, it is the installation's program. A suggested approach is to publish a series of articles about the program because one article cannot capture all the necessary information of a comprehensive program. As the program develops and matures, keep publishing updates, including success stories.

(E). When organizations have standard operating instructions, update them to include EPP APP. For example, Contracting Squadrons use milestones in their acquisition planning. Include a step to consider EPP products or services. See Appendix C for a sample milestone/checklist.

¹³³ For a complete sample copy of the training slides, visit <http://www.afcee.brooks.af.mil/eq/ap/epp/EPPfinal3.ppt>.

(F). Have periodic reminders in the government computer screen about the program. For example, every time a computer is turned on, a screen could appear saying, "Buy Environmentally Preferable Products," "Let's Help Clean the Environment, Buy Environmentally Preferable Products," "If you are not buying recycled products, you are not recycling," or other similar messages. At the bottom of the message, provide a point of contact, normally a member of the EPP Affirmative Procurement team and a phone number for further inquiries. In setting up this system, coordinate with the base communication squadron and receive permission from the installation commander. To prevent inconvenience to computer users, have the base communication squadron make the message automatically minimize itself after a few seconds of appearing on the computer screen. Furthermore, government users can voluntarily have similar messages on their computer screen savers. These suggested approaches and messages help instill in the minds of the employees the need to buy EPP. By doing so, EPP considerations become second nature to them.

(G). The team should provide an accessible suggestion box for comments, innovations, and inputs regarding the program or extra incentive by offering an award or recognition to the suggestion accepted and successfully placed into action. The team should have a point of contact that actively addresses the content of the suggestions.

(H). Recognize and present awards to individuals or organizations for outstanding efforts toward EPP APP. The installation could develop an award system

which parallels the White House Closing the Circle Awards.¹³⁴ The awards consists of six categories:¹³⁵

(1). *Waste Prevention*. This award recognizes the facility's reduction of waste generation through any change in design, manufacturing, or use of materials or products; and/or the amount of toxicity in waste materials before recycling, treatment, or disposal.

(2). *Environmental Preferability*. This award recognizes "the best examples of acquiring, using, or validating products or services that have reduced impact on human health and the environment when compared with competing products or services that serve the same purpose; an outstanding improvement to a process that resulted in significant monetary savings and benefit to the environment; or, product testing that led to the approval and use of environmentally preferable and sound products and services."¹³⁶

(3). *Recycling*. This award recognizes outstanding activities that recovers products or other materials from the waste stream for use in the manufacture of new products at the installation.

(4). *Model Facility Demonstrations*. This award recognizes achievements for outstanding contribution to waste prevention, recycling and affirmative procurement, investment in resources, and change in culture.

¹³⁴ *The White House Closing the Circle Awards: 1999*, CLOSING THE CIRCLE NEWS, at 3 (U.S. Office of the Fed. Env'tl. Executive Fall 1998). The White House awards also include individual awards under Executive Order 12856, Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements.

¹³⁵ *Id.*

¹³⁶ *Id.* at 6.

(5). *Affirmative Procurement* (Recovered Material). This award recognizes the installation's most effective and innovative programs implemented for the purchase and use of products containing recovered materials.

(6). *Sowing the Seeds for Change*. This award recognizes advancement of Executive Order 13101's objective through infrastructure or policy change. The award does not need to have a direct impact on the waste being reduced, recycling effort, or affirmative procurement practice implemented. This includes an agency partnership that indirectly reduces waste generation and promotes pollution prevention.

The installation commander should present the award during the award's banquet.

The winners in each category should be recommended to the White House Award level.¹³⁷

(I). Brief and educate personnel at every possible opportunity. At the orientation briefing, normally a senior officer, such as the installation commander, starts the briefing. While the attention of newcomers is fresh, the senior commanders should seize the opportunity to talk about the program.

(J). Use the base TV channel as a forum to publicize the program. With the help of the Public Affairs office, the team should use the base TV to conduct a series regarding APP. This is an opportunity for the team to be creative. As a suggestion, they could start with a short interview of the installation commander about the

¹³⁷ To register electronically the nomination, visit the OFEE website, <www.ofee.gov> and click on the awards logo or call (202) 260-9291.

program, then inform the public about the program, and publicize the award recipient of the program.

(K). Use a successful project in the installation as a showcase.

(L). Institutionalize the program. As lessons learned, pilot projects, and innovations compile, develop checklists and create an operating instructions whenever possible. For example, the checklist may include the following information: (a) eliminate use of virgin material requirement, (b) use biobased products, (c) use recovered material, (d) product reuse and life cycle cost, (e) recyclability, (f) use of environmentally preferable products, (g) waste prevention including toxicity reduction or elimination.¹³⁸

b. Raising Vendors and Contractors Awareness

(A). Distribute the fact sheet, a short brochure, or a handout developed by the EPP Affirmative Procurement team through the contracting office.

(B). Discuss the EPP APP at bidder's conference or similar meetings. Share ideas.

(C). Provide announcements in recycling journals, trade magazines, and procurement publications.

(D). Participate in regional vendor shows and trades fairs, or host an Environmentally Preferable Product and Recycled-Content Product Fair and invite local vendors to display their products that meet the EPA standards.¹³⁹

¹³⁸ Canada's Environmental Choice Program has developed a series of checklist that can be useful as a guide. To access the website, visit <http://www.ec.gc.ca/gog/procure/gpchk.htm>.

¹³⁹ See *Environmental Budgeting*, AIR FORCE INSTRUCTION (9 May 1994), which provides the Air Force guidance to receive funding for environmental programs.

3. Certification Program

Once the installation establishes the preference and promotion programs, the installation must ensure that contractors provide the requisite products. This is where the third element of RCRA -- contractor estimates, certificates, and verifications -- comes into play.¹⁴⁰ First, the contractor must estimate and certify the amount of recycled material that will be included in a product.¹⁴¹ Secondly, after the contractor delivers the product, the installation must verify that the estimates are accurate.¹⁴² The FAR clauses listed below accomplish this requirement.

a. Certification

FAR 52.223-9, *Certification and Estimate of Percentage of Recovered Material Content for EPA Designated Items*. This clause requires contractors to certify that the contractors provided recycled-content materials as called for in the specifications. The certification is a statement verified by the contractor and is attached to the bid documents. The contractor is also required to estimate the percentage of recovered materials actually

¹⁴⁰ Under the new FAR 13.005, which becomes effective on 7 Aug 2000, the requirement to provide estimate of recovered material used in the performance of the contract does not apply unless the contract value is more than \$100,000. It is interesting to note that (1) the limitation applies only to estimates and (2) the limitation covers all estimates of recovered material including EPA-designated items.

However, the new FAR 23.406 does not specifically prohibit the insertion of the clause at 52.223-9, *Estimate of Percentage of Recovered Material Content for EPA-Designated Products*, when the contract does not exceed \$100,000. The FAR states only to insert this clause in contracts exceeding \$100,000 that include the provision at 52.223-4, *Recovered Material Certification*.

¹⁴¹ AFCEE, *supra*, note 129.

¹⁴² *Id.*

used in the performance of the contract. The contracting personnel should maintain copies of the certifications.

FAR 52.223-4, *Recovered Material Certification*. Contracting officers will insert in all solicitations a requirement for the use of recovered materials. The contractor certifies that the percentage of recovered materials to be used in the performance of the contract will meet the amount required by the applicable specifications.

Insert FAR 52.223-10, *Waste Reduction Program*. It does not directly relate to EPP APP, but supports EO 13101 goals of recycling and waste reduction.

b. Verification

The EPP APP must contain reasonable verification procedures for estimates and certifications. Thus, the team should measure the recovered material in accordance with standard industry practice. For instance, the contracting officers may state in invitation for bids (IFBs) for recycled paper that, in the case of a bidder's protest, all estimates and certifications will be subject to audits.¹⁴³ In addition, the contracting officers may specifically caution the bidders of criminal actions if they provide false certifications.¹⁴⁴

The contracting officers may also consider amending the contract quality assurance procedures developed under FAR Part 46 to include verification of estimates and certifications.¹⁴⁵ The verification should be done in writing and signed by the appropriate official. This ensures that the contracting officers do not only take the word of suppliers regarding the environmental attribute of their product. For example, in the Pentagon

¹⁴³ RADIAN INT'L LLC, *Affirmative Procurement Plan for Peterson AFB*, 21 (1998).

¹⁴⁴ See Title 18 of the U.S.C.: 18 U.S.C. § 1001 (False statements made to the U.S.) and 18 U.S.C. § 287 (False claim).

¹⁴⁵ RADIAN INT'L LLC, *supra*, note 143.

Renovation Project, a supplier of recycled-content wallboard assured that its product contained 60 percent postconsumer content in compliance with the government contract.¹⁴⁶ However, when asked to verify the environmental attribute claim in writing, the supplier refused.¹⁴⁷ Consequently, the contracting officer did not proceed with the purchase.¹⁴⁸

4. Monitoring Program

Finally, the team must monitor its actions to gauge its program's progress and to find rooms for improvement. The installation should review and evaluate the effectiveness of its EPP APP every year. This stage of the process must go beyond collection of data and information. The installation must analyze the data and determine where it can make improvements. It is important to have open communication and to encourage the exchange of ideas throughout the entire elements of the framework. Several things to consider in the annual review include:

Make sure the program is current. Innovations, pilot projects, lesson learned, new laws and regulations always occur. Accordingly, the installation must update the program by assimilating what works for the installation. Of course, there are situations that must be included in the program because they are mandatory. For example, EPA periodically adds new EPA designated items to the list with the requisite RMAN level of

¹⁴⁶ ENVTL. PROTECTION AGENCY, DEFENDING THE ENVIRONMENT AT THE DEPARTMENT OF DEFENSE (1999) [hereinafter DEFENDING THE DOD].

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

recovered materials.¹⁴⁹ The program should encourage the team and the rest of the organization to gather new information and resources from training, conferences, news, articles, suggestion box previously mentioned, and similar fora. For example, it is a good idea for the team to receive copies of the Office of the Federal Environmental Executive newsletter, *Closing the Circle News*, for current news on federal acquisition, recycling and waste prevention.¹⁵⁰

Ensure that all installation organizations are participating in the program. If there are organizations that are not participating, this may be an opportunity to identify the problem, close the link, and make the program efficient and well-managed.

Institute an internal documentation of credit card purchases or nonpurchases of recycled content products including EPA designated items. Although the new FAR and other authorities do not require written determination for purchases at or below the micro-purchase threshold,¹⁵¹ it is a good managerial strategy to monitor such purchases. See chapter 5 below for further discussion about this subject.

During the Environmental Compliance Assessment and Management Program (ECAMP),¹⁵² discover any deficiencies and ensure corrective actions are made.

¹⁴⁹ For updates, visit <<http://www.epa.gov/cpg>>.

¹⁵⁰ To receive CLOSING THE CIRCLE NEWS by mail, send your name, office, agency or organization, and address to the following address:

Closing the Circle
401 M Street, SW
Washington, DC 20460

Or, by visiting the website, <www.ofee.gov>.

¹⁵¹ FAR 23.405(c); *Supra*, note 4, § 402(c).

¹⁵² The Air Force Environmental Compliance Assessment Management Program (ECAMP) is a comprehensive self-evaluation and management system designed to ensure

CHAPTER 4 SPECIFIC IMPLEMENTATION

The next three chapters concentrate on implementing the EPP APP program using the government credit card and the three types of contracts. This chapter will explore the common roots of implementing the program. Chapter 5 covers the implementation of EPP APP using the government credit card. Then, chapter 6 discusses the possible ways of implementing the APP through the use of supply, services and construction contracts.

A. No "One-Size-Fits-All" Approach

The APP provides the general framework for the EPP. However, EPP is a dynamic concept that cannot be implemented in the same manner for all contracts at this time. In short, there is no "one size fits all" for implementing EPP through the procurement process.¹⁵³ Nevertheless, there are still common approaches applicable for incorporating EPP through the procurement process.

B. EPP Principles

The first approach is to incorporate the five EPP principles in the procurement process. These principles include:¹⁵⁴

1. Guiding Principle 1: Environment + Price + Performance = Environmental Preferable Purchasing

compliance with environmental laws and regulations. It is a process that helps commanders assess the status of their environmental management system, and identifies and find solutions to environmental problems. There are two kinds of ECAMP, one internal and the other external. Internal ECAMPS are conducted at least annually while the external ECAMPS are conducted once every three years. *Environmental Compliance Assessment and Management Program*, AIR FORCE INSTRUCTION 32-7045 (1 Jul 1998).

¹⁵³ Final Guidance, supra note 120, 45811.

¹⁵⁴ *Id.* The five EPP principles are reproduced from the Final Guidance. See also, Major Mary E. Haney (USAF) et al., *Contract and Fiscal Law Developments of 1999: The Year in review: Special Topics: Environmental Contracting: Buying Green: The Trend continues*, 2000 ARMY LAW. 92, 92 (2000).

Environmental considerations should become part of normal purchasing practice, consistent with such traditional factors as product safety, price, performance, and availability.¹⁵⁵

2. Guiding Principle 2: Pollution Prevention

Consideration of environmental preferability should begin early in the acquisition process and be rooted in the ethic of pollution prevention, which strives to eliminate or reduce, up-front, potential risks to human health and the environment.

3. Guiding Principle 3: Life Cycle Perspective/Multiple Attributes

A product or service's environmental preferability is a function of multiple attributes from a life cycle perspective.

4. Guiding Principle 4: Comparison of Environmental Impacts

Determining environmental preferability might involve comparing environmental impacts. In comparing environmental impacts, federal agencies should consider: the reversibility and geographic scale of the environmental impacts, the degree of difference among competing products or services, and the overriding importance of protecting human health.

5. Guiding Principle 5: Environmental Performance Information

¹⁵⁵ *But see* NAT'L CONTRACT MANAGEMENT ASS'N, SOCIOECONOMIC OBJECTIVES TRAINING MANUAL 61 (1987) and Conrad, *supra* note 10. Both include environmental considerations in the procurement process as a socioeconomic policy. Although there is strong argument for this, it is better to argue that environmental considerations are in par with the traditional factors as price, performance, safety, and availability. To consider environmental factor as a socioeconomic policy is to connote that it is a factor outside the procurement process that is reluctantly imposed. However, to consider environmental factor as any "traditional" procurement factor is to connote that it is a regular factor in par with the traditional ones.

Comprehensive, accurate, and meaningful information about the environmental performance of products or services is necessary in order to determine environmental preferability.

Although these guiding principles do not provide a step-by-step approach in the procurement process, they provide a direction for installation purchasers in advancing the regulatory and statutory requirement.

C. EPA Designated Items¹⁵⁶

Another approach common to all procurement actions is to buy EPA designated items. Whether the procurement is through an IMPAC card or supply, services, or construction contracts, the installation must buy EPA designated items unless an exemption warrants otherwise.

1. List of Designated Items: Mandatory Buy Requirements

EPA is required to designate products that can be made with recovered materials. As of Jan 19, 2000, there are currently 54 EPA-designated items listed under eight product categories.¹⁵⁷ They are listed under product categories below:

¹⁵⁶ *Supra* note 67.

¹⁵⁷ *Id.* For more information on the CPG program, visit <www.epa.gov/cpg>. Key CPG/RMAN Federal Register Notices can also provide further information using the table below:

Key CPG/RMAN Federal Register (FR) Notices

Title/Subject	Publication Date	FR Citation	EPA Document #
CPG I	1 May 95	60 FR 21370	EPA530-Z-95-006
RMAN I	1 May 95	60 FR 21386	EPA530-Z-95-007
RMAN I Clarification on Floor Tile, Structural Board, and Laminated Paperboard Recommendations	12 Nov 96	61 FR 58067	N/A

Table 1
CPG Categories and Designated Items
(Items in bold were designated on January 19, 2000)

Paper and Paper Products	Park and Recreation Products Park benches and picnic tables Plastic fencing Playground equipment Playground surfaces Running tracks
Vehicular Products Engine coolants Re-refined lubricating oils Retread Tires	Landscaping Products Food waste compost Garden and soaker hoses Hydraulic mulch Lawn and garden edging Plastic lumber landscaping timbers and posts Yard trimmings compost
Construction Products Building insulation products Carpet Carpet cushion Cement and concrete containing coal fly ash Cement and concrete containing ground granulated blast furnace slag Consolidated and reprocessed latex paint Floor tiles Flowable fill Laminated paperboard Patio blocks Railroad grade crossing surfaces	Nonpaper Office Products Binders Office recycling containers Office waste receptacles Solid plastic binders Plastic clipboards Plastic file folders Plastic clip portfolios Plastic presentation folders Plastic desktop accessories Plastic envelopes Plastic trash bags Printer ribbons Toner cartridges

RMAN I Update on Polyester Carpet and Building Insulation	8 Jun 98	63 FR 31217	EPA530-Z98-002
CPG II	13 Nov 97	62 FR 60961	EPA530-Z-97-009
RMAN II	13 Nov 97	62 FR 60975	EPA530-Z-97-010
CPG III	19 Jan 00	65 FR 3082	N/A
RMAN III	19 Jan 00	65 FR 3070	N/A
Paper Products RMAN I	29 May 96	60 FR 26986	EPA530-Z-96-005
Paper Products RMAN II	8 Jun 98	63 FR 31214	EPA530-Z-98-003
Procedures for Submission of Recycled Content Product Information	20 Sep 95	60 FR 48714	N/A

CPG, *supra* note 120.

Shower and restroom dividers and Partitions Structural fiberboard	
Transportation Products Channelizers Delineators Flexible delineators Parking stops Traffic barricades Traffic cones	Miscellaneous Products Awards and plaques Industrial drums Manual-grade strapping Mats Pallets Signage Sorbents

In addition, EPA is required to recommend the level of recovered material for each designated product in the Recovered Material Advisory Notices (RMAN).¹⁵⁸ The recommended ranges of recycled content for the designated products are based on current information on commercially available recycled-content products. EPA updates the RMAN levels as marketplace conditions change.

Although the RMAN is a recommendation, for USAF installations the RMAN is mandatory.¹⁵⁹ AFI 32-7080 states that each installation will procure recycled-content products based on EPA guidelines.¹⁶⁰ Accordingly, USAF installations must purchase EPA designated items with the “recommended” minimum content standards listed under RMAN unless they are able to apply an exemption.

2. Exemptions to Mandatory Buy Requirements

There are four exemptions to buying EPA-designated items.¹⁶¹ USAF installation purchaser may elect not to buy EPA-designated items when: (1) the cost is unreasonable;

¹⁵⁸ *Supra* note 53.

¹⁵⁹ *Pollution Prevention Program*, AIR FORCE INSTRUCTION 32-7080, 3.5 (12 May 1994).

¹⁶⁰ *Id.*

¹⁶¹ *Supra* note 21.

(2) inadequate competition exists; (3) items are not available within a reasonable period of time; or (4) items do not meet reasonable performance specifications. The installation purchaser must prepare a written determination for such exemption. Typically, the unit's squadron commander is the approval authority.¹⁶² However, these exemptions should be used only for limited circumstances and as a last resort. The installation should not allow these exemptions be used on a regular basis without justification.

Basically, installation purchasers should follow the general analysis below:

- a. Are there EPA designated items that satisfy the buyer's needs? If so, buy the EPA designated items.
- b. If yes on question 1, but an exemption applies, should it be applied? Just because an exemption applies it should not be an automatic decision to buy virgin materials.
 - i. Are there other non-EPA-designated products with recycled content or other environmentally preferable attribute that will satisfy the buyer's needs assuming all else is equal (quality, availability, and cost)?
 - ii. If none, buy products with virgin materials.

Regardless of the answer on i and ii above, the buyer has to complete a justification form similar to ones in Appendix D.

- c. If the answer to question 1 is no, then are there other products with recycled content or environmental attributes that will satisfy the buyer's need? Again, it

¹⁶² AFCEE, *supra* note 129, 8. The Air Force gave the approval authority to the requiring activity's commander who is typically the squadron commander. Note that the new FAR 23.405 that takes effect on 7 Aug 2000 is silent about this issue while its soon to be predecessor, FAR 23.404(b)(3), states "an official designated by the head" as the approval authority.

should not be an automatic decision to buy product with virgin material if there are no available EPA designated items. For this section, a written justification is not required when no EPA designated items exists. However, it is a good idea to make some documentation of such purchase for future reference. At a minimum, it should include the manufacturer or supplier's information, the type of product, the environmental attribute, and the price. Provide this information to the APP team in furtherance of the APP program mentioned in chapter 3 above.

- d. For IMPAC card purchasers, refer to Chapter 5 regarding documentation.

The environmental management function should provide a list of EPA-designated items and the minimum content standards and should make the list easily available to base personnel. Because EPA updates the RMAN levels due to market conditions, the team should also update its list. Appendix E contains a sample list.

CHAPTER 5: GOVERNMENT CREDIT CARD

This chapter will describe briefly the government credit card. Then, it will provide a way to implement the EPP APP program through its use.

The government credit card, also known as the IMPAC card in the Air Force, provides organizations a flexible, convenient, fast way to purchase products. Rather than a single agency conducting the procurement for its consumers, the consumers purchase their needs directly from suppliers up to \$2,500.¹⁶³ This decentralization of procurement has led to an increase in number of IMPAC card users.¹⁶⁴ This, in turn, translates to a meteoric increase in its use.¹⁶⁵ To reach the program's success, the EPP APP team must reach all those cardholders. For such reason, the contracting agency must properly train IMPAC card users to maximize the purchase of EPP products.

A. Suggested Training Approach

As a general approach, the first step of the training is to define "environmentally preferable product." IMPAC cardholders must understand what products are considered EPP. Therefore, they must know what EPP is to identify those products. For example, if a purchaser has a choice with a high volatile organic compound (VOC) content paint over

¹⁶³ FAR 2.101. The micro purchase threshold for construction acquisition is \$2,000.

¹⁶⁴ In 1999, at least 340,000 federal employees are credit card holders. Steven L. Schooner & Neil S. Whiteman, *Purchase Cards and Micro-Purchases: Sacrificing Traditional United States Procurement Policies At the Altar of Efficiency*, 9 PUB. PROC. L. REV. 14 & n.28 (forthcoming 2000).

¹⁶⁵ *Id.* The federal government made more than 16.2 million charge transactions in 1998, which amount to \$8.2 billion. The Air Force alone made 2,132,919 credit card transactions, totaling \$815,193,902 with a \$382 average purchase per transaction. U.S. Office of Management and Budget (OMB), *Electronic Purchasing and Payment in the Federal Government, Annual Report to Congress*, Appendix C: Selected Transactional Data (1999), available at <<http://policy.works.gov/org/main/me/epic/ecreport.pdf>>.

low VOC-content paint that provides the same performance and relatively the same price, he should purchase the paint with the low VOC-content.

The next step is identification of an environmentally preferable product. Knowing the environmental attribute is the key. In some situations, it would require a one-step process, while in others it is a two-step process. In the one-step process, EPA has already identified 54 products designated with a single attribute, known as the EPA-designated items previously discussed under Chapter 4. The only thing left for the installation purchaser to do is to find that product needed and purchase it. However, the two-step process requires the installation purchaser to determine the environmental attribute and then to determine which product satisfies that attribute. In short, the environmental attribute primarily determines what is an environmentally preferable product.

Therefore, when using the credit card, the purchaser must identify the environmental attribute. The two general categories of environmental attributes are positive attributes and environmental impact attributes.¹⁶⁶ A good example for positive attribute is recycled content of a product or its reusability. The environmental impact attributes can be subdivided into impacts on the natural resources and impacts to the human health. A good example is a product that contains no hazardous materials or toxic chemicals.

Appendix F has a detail list of environmental attributes.

This approach parallels the President's specific direction under Executive Order 13101. Under that Order, the President has directed federal agencies to buy products that (1) are made with recycled content, (2) have less packaging, (3) are energy efficient, (4) do not create hazardous waste, and (5) incorporate other environmentally preferable

¹⁶⁶ Final Guidance, *supra* note 120, 45812.

attributes.¹⁶⁷ Accordingly, the training should include an instruction to buy products with recycled content products, to buy products with reduced packaging, to look for the Energy Star Label,¹⁶⁸ to ask if the product contains hazardous materials or toxic chemicals, and look for other information on the environmental attributes of products.

For recycled-content products, first check the list EPA-designated recycled content products to determine whether the list has the needed product. If so, IMPAC cardholders must buy those products as long as they are available, meet the performance needs, and are at a reasonable price. IMPAC cardholder should follow an analysis similar to ones listed under Chapter 4C2 above.

Although not dealing with the product directly, IMPAC cardholders should buy products with reduced packaging. Packaging is a significant solid waste problem.¹⁶⁹ An example might include purchasing bulk items with single packaging rather than individual items that requires multiple packaging or buying a pad of paper without plastic wrapping.¹⁷⁰

Military installations use products that use energy. To name a few, they include copiers, fax machines, computers and peripherals, refrigerators, and TV/VCRS. IMPAC

¹⁶⁷ Exec. Order 13101, *supra* note 4.

¹⁶⁸ Energy Star program is a single-attribute environmental purchasing program that identifies ways to conserve energy, saves money, and helps protect the environment. It is available at <<http://www.epa.gov/energystar>>.

¹⁶⁹ EPA estimates that packaging alone accounted for 23.7% of the volume and 19.4% of the weight of the material that went to municipal landfills in 1996. U.S. ENV'TL PROTECTION AGENCY, *EPP Credit Card Purchasing* <<http://www.epa.gov/opptintr/epp/creditcard/htm>>.

¹⁷⁰ *Id.*

cardholders should buy product that is energy efficient. IMPAC cardholders should also investigate whether the product contains hazardous materials or toxic chemicals. For example, cleaning products used in maintenance services may contain petroleum-based solvents or acids. Also, paints may include hazardous materials or toxic chemicals.

Once IMPAC cardholders understand EPP, the training should help ease their search of EPP's availability. This means the team should provide the holders resources and tools to apply what they have learned. For example, most of the products that are EPA-designated items are available from the General Services Administration (GSA). The team should provide the cardholder GSA catalogs or a place to get them. For example, the IMPAC cardholders can access the GSA website for catalogs and its environmental products guide as shown in Appendix J.

B. Advertising Claims

However, IMPAC card users must be aware of the advertised environmental features of the product. The Federal Trade Commission, with the help of EPA, has developed a guideline to help consumers so as not to be misled by advertisers.¹⁷¹ Here are some tips to help sort through the environmental claims.

1. Make sure the information regarding the environmental claims is specific. For example, a product that claims "25% less waste than our previous package" provides more information than "25% less waste."¹⁷²

2. Determine whether the environmental claims apply to the product, the package or both.¹⁷³

¹⁷¹ Summary of Federal Trade Commission Guides for Use of Environmental Marketing Claims, 60 Fed. Reg. 50722, 50734 (1995).

¹⁷² *Id.*

3. Beware of an environmental claim that overstates the environmental attribute or benefit. The best thing to do is to look for claims that give additional information that explains why the product is environmentally friendly.¹⁷⁴

4. Claims of biodegradable should be clarified to avoid consumer deception about “(a) The product or package’s ability to degrade in the environment where it is customarily disposed; and (b) the extent and rate of degradation.”¹⁷⁵

5. A claim that a product or package is recyclable, rather than recycled, generally means that the product or package can be collected, separated, and used again.¹⁷⁶

C. Documentation

IMPAC cardholders must purchase EPA-designated items, but are not required to complete a justification form similar to Appendix D if they decide to apply the exemptions. Although not required, it is a good idea to still document the purchase using the justification form. The most important reason is that documentation supports the monitoring element of the Affirmative Procurement Program discussed in Chapter 3.

Specifically, documentation provides statistics on how many, how often, how much and what types of products are purchased with the credit card. It provides a gauge on how much impact the uses of credit card have on buying EPP and non-EPP products.

¹⁷³ *Id.*

¹⁷⁴ *Id.*

¹⁷⁵ *Id.* at 50735.

¹⁷⁶ For more information, visit the Federal Trade Commission’s website at <www.ftc.gov> and EPA’s website at <www.epa.gov>. See FED. TRADE COMM’N, FACTS FOR CONSUMERS: SORTING OUT ‘GREEN’ ADVERTISING CLAIMS 1 (1999); see also 60 Fed. Reg. 50722, 50734 (1995).

With such information, the Affirmative Procurement Team, after analyzing the collected data, can use it to improve the program. For example, the team may realize after gathering all the data from the documents that a certain product is on high demand. The team, through appropriate channels, may use the automatic substitution policy (further explained in chapter 6) to substitute recycled-content product for the ordered non-recycled-content product. Also, documentation has the indirect effect of curbing potential credit card abuses and preserves some, if not all, the core principles of the United States Government procurement system: competition, transparency, and integrity.¹⁷⁷

Compare to the traditional steps of making small purchases before the introduction of the credit card, this short documentation requirement, as already provided in the Appendix D, is not as burdensome as one might think. Traditionally, procuring a small item, such as office furniture, might involve numerous steps that would result in weeks or months to receive the item. Normally, it starts with the requiring activity completing a purchase request. The request form is further reviewed and forwarded to the finance office for certification of appropriate type of funds and its availability. Once approved, it gets sent to the contracting office, which then buy the product for the requiring activity. In short, completing a short form to document the purchase is considerably less burdensome than the traditional steps of making small purchases. The form generally requires the purchaser to mark the EPA designated item not purchased, select the applicable exemption(s), and provide a short justification.

¹⁷⁷ For more discussion about these core principles, see Steven L. Schooner, *Pondering the Decline of Federal Government Contract Litigation in the United States*, 8 PUB. PROC. L. REV. 242, 248 (1999).

CHAPTER 6: SERVICES, SUPPLY, AND CONSTRUCTION CONTRACTS

This chapter discusses the incorporation of EPP throughout the procurement process for services, supply, and construction contracts. First, it discusses the EPP consideration during the planning process. Then, it continues with the drafting of solicitation after completing the acquisition plan. This chapter then provides suggestions on how to consider the environment as a factor in a sealed bidding and negotiated procurement. Also in this chapter, discussion of EPP incorporation continues after award of the contract. Finally, it explains the automatic substitution policy as a tool to implement EPP in a procurement action.

When it comes to centralized procurement, the APP team will have more control over the purchase of EPP products. The process is similar to a typical procurement action, except environmental consideration plays a more active role, requiring a teamwork approach between the team and the program managers comprising the following elements flexibly interpreted.

A. Identify the Needs/ Incorporate the EPP Principles

As with any procurement action, the requiring activity must identify its needs during the acquisition plan while incorporating the EPP principles throughout the procurement process. Additionally, during the acquisition plan, the requiring activity should use every available and applicable resource, including other expertise from different agencies besides the APP team.

The acquisition plan should “[s]pecify the required capabilities or performance characteristics of the supplies or the performance standards of the services being acquired

and state how they are related to the need.”¹⁷⁸ Thus, the requiring activity, with the assistance of the team, should start considering environmental factors at the beginning of the acquisition plan even as early as when the needs are identified.

For example, in a custodial contract, the planners should identify the areas where environmental concerns can be included. The areas could include the types of products used or the method of cleaning a building that helps conserve energy. Similarly, in a contract to supply the installation with new computers and peripherals, the team should apply the EPP principles early in the process to identify the required environmental features of the computers. The same process applies to a construction contract. For example, in a building renovation action, it may involve using products, such as insulation, vinyl ceilings, paint, or concrete. In addition, the team can apply EPP principles regarding waste reduction.

B. Determine Environmental Attributes

In applying the environmental principles during the acquisition plan, the requiring activity should identify the environmental attributes. Using the same example above with the custodial service, once cleaning products and methods of cleaning have been identified as areas to apply the EPP principles, the next step is to determine the environmental attributes for those areas. For cleaning products, the attributes could be less packaging, no skin irritation, and less fragrance. For method of cleaning, it could be a method to efficiently clean the building. This may include turning on the room light to be cleaned only when it is ready rather than turning on all lights of the building offices and clean each room one at a time.

¹⁷⁸ FAR 7.105(a)(4).

Further examples include:

- For the supply of computers, chances are the attributes for the computer will be energy efficiency, durability, and reusable or recyclable parts.
- Regarding the building renovation contract, the environmental attributes may be no hazardous material, recycled content, or durability of the insulation, vinyl ceilings, paint, and concrete.
- For waste management, the renovation specification may include a statement about environmental management of construction and debris. This involves not just the use of products for the renovation, but also environmental practices.

When determining the environmental attributes in any contract, the team should strive for attributes that are not just the lowest hanging fruit. This is important to help the program mature and grow. Additionally, it influences the market to create new product and as such create a demand. In short, increase the standard whenever possible.

To help determine the environmental attributes refer to the list of environmental attributes or features at Appendix F as previously mentioned in Chapter 5.

The team may be able to conduct its own research to determine the environmental attributes of the product. They could conduct an inter- or intra-agency approach. Alternatively, the team may make use of an outside expert agency, non-governmental entities to help make the determination.¹⁷⁹ Executive Order 13101 § 503(b)(2) encourages the use of nongovernmental entities to determine environmentally preferable attributes of products and services.

¹⁷⁹ Exec. Order 13101 § 503(b)(2).

Nongovernmental entities are third parties that promote EPP. They include “environmental standard setting organizations, third party certification programs, environmental labeling or environmental ‘report’ card’ programs and other environmental consulting organizations.”¹⁸⁰ EPA provides numerous suggested approaches on the use of nongovernmental entities. Generally, the federal installation could use the existing information already developed by nongovernmental entities; could use nongovernmental entities as certifiers of specific, measurable, and verifiable claims; and could use nongovernmental agencies to provide consulting services.¹⁸¹ The full text of EPA’s guidance has been added as Appendix G.

C. Conduct Market Research/Survey

Once the contracting agency identifies the environmental attributes, it should research and survey the market to determine whether there are potential bidders that can provide the needs of the requiring activity with the requisite environmental attributes.

For example, if more than one bidder is capable of providing the product and services with the requisite environmental attributes, performance, and price, then the team should proceed with the solicitation.

However, if no potential bidders can achieve all the requisite environmental attribute (assuming adequate performance and relative price exist), but can achieve more than one of the attributes, then the team should adjust its solicitation to reflect those attributes that the potential bidders can achieve.

¹⁸⁰ Final Guidance, *supra* note 120, 45812.

¹⁸¹ *Id.*

On the other hand, if some potential bidders can provide products or services beyond the requested attributes and some potential bidders can only provide some of the requested attributes, then the goal is to maximize EPP while considering the traditional factors as price, performance, and availability. This approach assumes that full and open competition is contemplated.

Alternatively, if only one potential bidder is capable of producing a product or conducting a service with the environmental attributes, then proceed with caution. The contracting agency must ensure the decision is non-discriminatory for other potential bidders.¹⁸² Also, the contracting agency must ensure it has proper justification.¹⁸³ Or, if other potential bidders do not carry the requested product, but are capable of producing the product or conduct the service, then the installation may give an incentive to that potential bidders to produce the product and conduct the services in the form of a price differential.

D. Draft/Adjust Solicitation

Based on the information gathered from the market survey and research, the team adjusts an existing specification, if applicable, or drafts a new specification. For example, the building renovation construction specification may include the following language:

Paints containing lead in excess of 0.06 percent by weight of the total nonvolatile content (calculated as lead metal) shall not be

¹⁸² See, generally, Thomas Westphal, *Greening Procurement: An Attempt to Reduce Uncertainty* 8 PUB. PROC. L. R. 1 (1999).

¹⁸³ 41 U.S.C. § 253(c)(1); 10 U.S.C. § 2304(c)(1); FAR 6.302-1(a)(2) and (d).

used. Paint cans and their components cannot be fabricated with lead.¹⁸⁴

Provide fiberglass insulation with recovered material content, minimum 20 to 25 percent by weight, of glass cullet. Provide foam sealant with recovered material content, minimum 5 percent by weight.¹⁸⁵

At the same time, the solicitation should incorporate EPA Designated Items.¹⁸⁶ For example, the solicitation or statement of work (description of the need) should include “boilerplate” language for all contractors to meet EPA requirements whenever they provide an EPA designated item to the installation as part of their contract. Some sample boilerplate language:

In an effort to comply with the affirmative procurement requirements of Section 6002 of RCRA and Executive Order 13101, the Government strongly promotes the use of recycled and recovered materials and products identified in the Environmental Protection Agency’s Comprehensive Procurement Guidelines. These materials and products must meet the requirements of the specifications, must not delay the progress of the work, and must not be cost prohibitive. EPA guideline items are seen as the minimum that should be considered when evaluating recycled/reused materials. Other materials and products not listed, but commonly used in industry outside of the government, should also be considered. Material and product submittals for all recycled-content items should list the recycled and recovered materials used and the percentage content.¹⁸⁷

¹⁸⁴ DEFENDING THE DOD, *supra* note 146.

¹⁸⁵ AFCEE, *supra* note 129.

¹⁸⁶ See Engineering Technical Letter (ETL) 00-1: EPA Guideline Items in Construction and Other Civil Engineering Specifications from Col Michael J. Cook, Director of Technical Support, *Headquarters Air Force Civil Engineer Support Agency* to Department of Defense and Special Interest Organizations (Jan. 5, 2000).

¹⁸⁷ AFCEE, *supra* note 129, 18.

The contracting agency can also refer the bidders to the EPA website for further information regardless of the potential bidders' familiarity with the EPA-designated items. Because most service contracts are multi-year contracts, the contracting officer should review the specifications of the those contracts to incorporate the use of environmentally preferable products or recycled content products in the future contract and options.

E. Methods of Procurement

Whether the contract is for sealed bidding or negotiated procurement, EPP consideration continues.

1. Sealed Bidding

In sealed bidding, the contracting officer awards the contract to the lowest responsible responsive bid. More precisely, award is to the responsive and responsible bidder whose bid is most advantageous to the government, considering price and price-related factors.¹⁸⁸ Thus, the team, specifically the procurement personnel, can incorporate EPP requirements using these three factors.

a. Responsiveness¹⁸⁹

The procurement personnel properly draft the solicitation to incorporate EPP or its environmental attributes. Because the contracting officer determines responsiveness only on the basis of information submitted with the bid, it is very important that there be a thorough acquisition planning while the team has more control at this stage to incorporate

¹⁸⁸ FAR 14.101(e); FAR 14.103-2(d).

¹⁸⁹ Responsiveness generally means the bidder promised to do exactly what the government requested. FAR 14.301.

EPP in the solicitation. By doing so, it permits the contracting officer to award the contract to a higher bid price that conforms to the solicitation.

Once the solicitation is released to and responded by the bidders, the team generally is bound by the bid response.¹⁹⁰ Although the bids may be responsive to the solicitation, it may not have properly incorporated EPP or its environmental attributes.

For example, in *Victor Graphics*, 69 Comp. Gen. 410, 413, 90-1 CPD ¶ 407, the United States Government Printing Office (GPO) issued an invitation for bid (IFB) for a supply of paper that meets or exceed the 50 percent minimum percentage of recovered materials. GPO awarded the contract to United Book Press, for meeting the IFB. Victor Graphics, another bidder, protested the award because it offered to supply the paper at a lower price, but the paper did not include any recovered material. The Comptroller General ruled that even though Victor Graphics offered a lower-priced bid, it was not responsive. The ruling allows an award to a higher bid that meets the recovered content requirement. Of course, price is still an important factor in a sealed bid, but in this case, the protestor's bid price did not matter because it offered a nonconforming product.

b. Price and Price-Related Factors

Price-related factors are "evaluation factors other than price that affect a contract's overall cost to the government and can be quantified in dollars."¹⁹¹ They are added to the

¹⁹⁰ The installation may cancel the solicitation under FAR 14.209 (cancellation before bid opening) and FAR 14.404-1 (cancellation after bid opening).

¹⁹¹ RALPH C. NASH JR. et al., *THE GOVERNMENT CONTRACTS REFERENCE BOOK A COMPREHENSIVE GUIDE TO THE LANGUAGE OF PROCUREMENT* 405 (2nd ed. 1998).

price to determine the low bidder. Aside from transportation costs and taxes, price-related factors also include life cycle cost.¹⁹²

(A). Life Cycle Cost

Under sealed bidding, the lowest bid price generally receives the contract award. The issue is determining how to consider EPP using the price factor. During price evaluation, the team can incorporate EPP consideration by including life cycle cost as part of the price-related factors.¹⁹³

Life cycle cost (“cradle to grave”) means the total cost to the government of a product throughout its life cycle -- from acquisition, operation, maintenance, and ultimate disposal.¹⁹⁴ Throughout the life cycle of a product, it produces a variety of burdens to the environment. By considering the life cycle cost of a product in the procurement process, the installation can reduce the negative environmental impacts in as many of the product’s life cycle stages. Furthermore, using life cycle cost as a price-related factor sends a signal to potential contractors that the installation will do business to those who consider the effect of their product’s life cycle on the environment.

Thus, the installation can award a “higher” bid price that considers life cycle cost instead of the “lowest” bid price that does not consider the life cycle cost.¹⁹⁵ This is consistent with EPA’s interpretation of “unreasonable price” to mean that procuring

¹⁹² See JOHN CIBINIC, JR. & RALPH C. NASH, JR., FORMATION OF GOVERNMENT CONTRACTS 619 (3rd ed. 1998).

¹⁹³ *Id.* See also *Staber Indus., Inc.*, Comp. Gen. Dec. B-276077, 97-1 CPD ¶174 (1997);

¹⁹⁴ CIBINIC & NASH, *supra* note 192.

¹⁹⁵ *E.g.*, *Sundstrand Corp.*, Comp. Gen. Dec. B-227038, 87-2 CPD ¶ 83. The offeror received the award although its offer was substantially higher unit price on turbine engines due to superior life cycle cost savings.

agencies are not required to purchase recycled products if they are more expensive than alternatives made with virgin materials.¹⁹⁶ When life cycle cost is identified as a price related factor, the “higher” bid price is less expensive than the alternatives with virgin materials in the long run.

To include life cycle cost as a price-related factor, the installation must identify and describe it in the solicitation with sufficient clarity so the bidders can understand it.¹⁹⁷ Ideally, it should be capable of being quantified as a mathematical equation. However, to evaluate life cycle cost, the solicitation “need not spell out the evaluation methodology with mathematical precision. It is sufficient if the bidders can arrive at a reasonable estimate of the costs that will be used by the Government to make the evaluation.”¹⁹⁸

To identify and describe the life cycle cost in a solicitation, the team should develop a list of tool and resources. Some of them are listed under Appendix J. Also, the installation should consult with the experts within and outside the federal agency to develop life cycle cost tools to support environmental preferability decisions.

In short, consideration of life cycle cost saves the installation money in the long run, it benefits the environment, and it encourages contractors to produce environmentally preferable product.

¹⁹⁶ *National Recycling Council v. Reilly*, 884 F. 2d 1431 (D.C. Cir. 1989) *reh. den.* 890 F. 2d 1242 (1989).

¹⁹⁷ CIBINIC & NASH, *supra* note 192, at 619.

¹⁹⁸ *Id.*

(B). Price differential

The use of price differential is another way to incorporate EPP during the procurement process of a sealed bidding. Basically, price differential is a tool that permits installations to pay a price premium to an environmentally preferable product or services.

Generally, price differential should be used to purchase environmentally preferable products that are available at an unreasonable price.¹⁹⁹ Usually, new technology or innovations that produce environmentally preferable products, such as recycled-content product, can be costly until market demands allow the price to go down. By paying a price premium to an environmental preferable product, the installation sends a clear signal to contractors that market demands will increase, that new environmentally preferable products are encouraged, and that the product will be economical.

Additionally, in deciding whether to use price differential, the installation must consider the nature of the procurement and the availability of funds. Nature of procurement involves the type of product the installation wants to buy and the type of business preference. When using price differential, the installation should apply it to products that are commonly used. This influences the market while at the same time making a dramatic change to the environment. For example, the federal government buys 20.9 billion sheets of copier paper a year, which equates to 10 million sheets of paper used every hour of every working day.²⁰⁰ Although recycled content paper products were available then, they were more expensive than paper products made with virgin material. The Department of Defense established a 10% price differential for

¹⁹⁹ Conrad, *supra* note 10, 66.

²⁰⁰ *Giant Leap in Postconsumer Copier Paper Compliance*, CLOSING THE CIRCLE NEWS, at 1 (U.S. Office of the Fed. Env'tl. Executive Winter 1999-2000).

recycled paper products when determining whether the cost of such product is unreasonable.²⁰¹ Additionally, the General Services Administration offered a five-cent per-case price preference on 20% (30% as of December 31, 1998) recycled copier paper (post consumer)]. As a result, federal agency's compliance to purchasing 20% post-consumer copier paper rose from 19% in 1994 to 39% in 1997.²⁰²

The installation should also consider whether the contract is a large or small business contract. Small businesses are most likely not to have an overhead budget large enough to absorb the cost of procuring environmental preferable products, including research and development, to satisfy a complex contract. Using a price differential provides an incentive for the potential small businesses to absorb the cost. For large business contract, price differentials are not always a viable option. Large businesses are likely to have overhead budgets that allow them to invest time and cost to procure environmentally preferable products to complete a contract.

Finally, the installation should determine whether it has available funds before deciding to include a price differential. If there are sufficient funds, the team should carefully determine the price differential, making sure all potential contingencies are computed. Obviously, this prevents the contract from running out of funds.

The team should also develop a plan where the contract offers a price differential while at the same time "saves" money. For example, in the Pentagon parking lot renovation contract mentioned in Chapter 1, the DOD provides price differential to

²⁰¹ Conrad, *supra* note 10, 67 & n. 193.

²⁰² *Recycled Copier Paper Compliance Double in FY 97*, CLOSING THE CIRCLE NEWS, at 2 (U.S. Office of the Fed. Envtl. Executive 1998) [hereinafter *Recycled Paper*].

environmentally preferable products that are not mandatory requirements. However, DOD has the option to modify the non-mandatory environmental products to the mandatory category, which is not eligible to price differential. This occurs when a product with environmental attributes becomes industry-product attributes. For instance, the contractor can receive price differential for using paints with a VOC content less than 150 gram per liter. If the paint becomes routinely available with the requisite VOC level, DOD may make this attribute mandatory rather than voluntary requirement. Although the contractor is no longer eligible for the price differential, it can still make itself eligible by introducing new environmental attributes at anytime. If DOD approves the environmental attribute, the contractor will be eligible for the price differential. Besides the contractor, DOD can also introduce new attributes at any time. This scheme encourages the contractor to search for products with new environmental attributes, it creates markets for the new product, and it “saves” DOD, and ultimately the United States taxpayer money.

c. Responsibility

Determining a contractor’s responsibility is another area where the team considers EPP in the procurement process. Before awarding a contract, the contracting officer has the affirmative duty to determine the prospective contractor’s responsibility.²⁰³ Responsibility determines whether the prospective contractor has the capacity, tenacity, and perseverance to perform the contract.²⁰⁴ Therefore, the contracting officer must

²⁰³ FAR 9-103(b).

²⁰⁴ See NASH, *supra* note 191, 447.

consider the prospective contractor's environmental responsibility as part of the selection process.

(A). Debarment and Suspension

In determining a prospective contractor's responsibility, the contracting officer must review whether the prospective contractor is included in the debarment and suspension list.²⁰⁵ Debarment and suspension can be based on environmental and non-environmental grounds. Nevertheless, the contracting officer should pay close attention to a facility that is included in the EPA's list of facilities that are prohibited from receiving government procurement awards. EPA creates a list of facilities that are in violation of the Federal Water Pollution Act (33 U.S.C. 1368) and the Clean Air Act (42 U.S.C. 7606).²⁰⁶ These statutes prohibit procuring agencies from awarding contracts to be performed at such facilities. The contracting officer must be cognizant that a facility's ban on government contract award for violation of the Clean Air Act (CAA) can extend to any other facilities owned or operated by the convicted person. This prevents a convicted person from moving the work under a government contract to a different plant of the same facility. However, the Federal Water Pollution Act (CWA) does not have a similar provision.

There are two kinds of EPA listing: mandatory and discretionary.²⁰⁷ Under the mandatory listing, the EPA must list the convicted facility or individual for violation of the CAA and CWA. The EPA has the discretion to list a facility: (1) if there are

²⁰⁵ FAR 9.403; FAR 9.407-1(b)(1).

²⁰⁶ REITZE, *supra*, note 71, 49.

²⁰⁷ *Id.* at 50.

continuing or recurring violations of either the CAA or the CWA; or (2) if EPA or state enforcement agency brought civil enforcement proceedings against a violator.

(B). Business Ethics and Integrity

Once the contracting officer reviews the debarment and suspension list, the contracting officer further determines environmental responsibility by examining the prospective contractor's integrity and business ethics.²⁰⁸ These are not necessarily evidenced by a conviction. It can also be based on adequate evidence.²⁰⁹

(C). Past Performance

The contracting officer can also determine a prospective contractor's environmental responsibility using the other standards listed under FAR 9.104-1, particularly past performance. Past performance assesses a prospective contractor's "capability, comprising of three elements: '(1) observations of the historical facts of a company's work experience – what work it did, when and where it did, whom it did for, and what methods it used; (2) qualitative judgments about the breadth, depth, and relevance of that experience based on those observations; and (3) qualitative judgment about how well the company performed, also based on those observations.'"²¹⁰ Using these elements, the contracting officer can examine the contractor's environmental compliance on previous contracts, minimization of environmental damage, and use of environmentally preferable

²⁰⁸ CIBINIC & NASH, *supra* note 192, at 420, 461-7.

²⁰⁹ FAR 9.407-1(b)(1) states: "In assessing the adequacy of the evidence, agencies should consider how much information is available, how credible it is given the circumstances, whether or not important allegations are corroborated, and inferences can reasonably be drawn as a result. This assessment should include an examination of basic documents such as contracts, inspection reports, and correspondence."

²¹⁰ NASH, *supra* note 220, at 385.

products. However, a contractor's environmental responsibility based on past performance is driven by the specification of the given contract.

(D). Special Standards

If the installation wants to ensure that environmental factors are included in and tailored to the environmentally responsibility determination, then the installation may use definitive criteria, which are sometimes referred to as special standards. Definitive criteria permit the contracting officer to define the responsibility criteria by including special standards of responsibility.²¹¹ Specifically, FAR 9.104-2(a) states:

When it is necessary for a particular acquisition or class of acquisitions, the contracting officer shall develop, with the assistance of the appropriate specialists, special standards of responsibility. Special standards may be particularly desirable when experience has demonstrated that unusual expertise or specialized facilities are needed for adequate contract performance. The special standards shall be set forth in the solicitation (and so identified) and shall apply to all offerors.²¹²

The EPP APP team is already composed of members who are experts in their respective fields, so they can ensure that the contract is drafted to include the definitive responsibility criteria.

Because the criteria are special standards, the contracting officer must draft it specifically, objectively, and mandatorily.²¹³

²¹¹ FAR 9.104-2(a).

²¹² *Id.*

²¹³ *AT&T Corp.*, Comp. Gen. Dec. B-260447.4, 96-1 CPD ¶ 220; *Weldtest, Inc.*, Comp. Gen. B-216747.2, 84-2 CPD ¶ 612.

(E). Preaward Survey

Another tool the contracting officer can use to incorporate EPP considerations in the procurement process is the preaward survey. A preaward survey evaluates a “prospective contractor’s capability to perform a proposed contract.”²¹⁴

Contracting officers normally use preaward survey when there is insufficient information at the agency’s possession to make a determination of a prospective contractor’s responsibility.²¹⁵ Contracting officers requests preaward surveys using Standard Form 1403, *Preaward Survey of Prospective Contractor (General)*.²¹⁶ Among other areas covered on the form, SF 1403 includes packaging²¹⁷ and environmental/energy considerations.²¹⁸ Furthermore, SF 1403 offers the contracting officers flexibility of identifying other factors to investigate and permits the contracting officers to list specific requirements in the remarks section that may include specific areas of environmental responsibility.²¹⁹ A copy of the form is in Appendix L.

Until FAR 9.104-1 lists consideration of environmental factors as part of the affirmative responsibility determination, the contracting officer and the team should use the tools mentioned above in incorporating EPP in the procurement process in sealed bidding.

²¹⁴ FAR 9.101.

²¹⁵ FAR 9.106-1(a).

²¹⁶ See FAR 53.301-1403.

²¹⁷ *Id.* at section III20C.

²¹⁸ *Id.* at section III20F.

²¹⁹ *Id.* at section III20H and III23.

2. Negotiated Procurement

Unlike sealed bidding, negotiated procurement is not limited to the lowest responsible responsive bid standard to award a contract. In a negotiated procurement, it provides the contracting officer more flexibility in ensuring EPP consideration by using evaluation factors. Contracting officers make award decision based on evaluation factors that are tailored to the acquisition. Again, proper and thorough acquisition planning is also important.

Evaluation criteria, must “represent key areas of importance to be considered in the source selection decision.”²²⁰ Negotiated procurement permits the contracting officer to include environmental concerns as an evaluation factor for purposes of award.²²¹ Thus, besides the typical factors, such as price, past performance, technical factors, and other factors mentioned above under sealed bidding, environmental factors can be specified for award consideration. For example, the evaluation factor may require the bidders to explain how they would identify and purchase products with positive environmental attributes and how their current operating practices demonstrate environmental stewardship. This can include preventing waste, recycling, and treating leftovers in an environmentally safe manner. For construction contracts, the evaluation factor can also include how the contractor minimizes construction waste and maximize construction and demolition (C&D) debris recycling. More importantly, the procuring agency can apply the other factors or tools mentioned earlier under sealed bidding.

²²⁰ FAR 15.304.

²²¹ FAR 15.304(c).

F. Post Award

EPP consideration should continue after contract award. Under the third element of the EPP APP framework, *Certification, Estimates and Verification*, the contracting officer may consider revising beforehand the contract quality assurance procedures developed under FAR Part 46 to include verification of estimates and certifications. For example, suppliers should be requested to verify the environmental attribute of a product in writing. By requiring environmental attributes in writing, it helps ensure that the product meets the specification.²²²

Also, the contracting officer should emphasize to the contractor that he will carefully review the implementation of the contract. This sends a message to the contractor and its subcontractors, if any, that they should take the environmental considerations as seriously as the federal installation took them.²²³

G. Automatic Substitution

Within the supply contract, another tool that ensures the purchase of environmentally preferable product is automatic substitution. Generally, an agreement exists between a federal agency and a supplying agency to substitute environmentally preferable product -- specifically, recycled content product -- to any orders for non-recycled content or non-compliant products when they are available.

A good example of a successful automatic substitution is recycled paper. In 1997, the Department of Defense entered into an automatic paper substitution with GSA,

²²² See MAINTAIN THE PENTAGON, *supra* note 88.

²²³ *Id.*

authorizing it to substitute any DOD virgin paper orders with recycled content paper.²²⁴

According to Fran McPoland, the Federal Environmental Executive, the result of DOD's automatic substitution policy was the increase of DOD's paper compliance from 14% from fiscal year 1996 to 33% in fiscal year 1997.²²⁵

More recently, DOD and the Department of Justice (DOJ) initiated substitution policies for re-refined lubricating oil.²²⁶ Defense Logistics Agency (DLA) was the supplying agency, which fills the DOD and DOJ's order for virgin oil with re-refined oil in compliance with Executive Order 13101. Specifically, DLA substitute re-refined oil for virgin oil when the orders are for "commercial grades of 10W30, 5W30, and 15W40, 30 and 40 weights motor oils."²²⁷ Besides the environmental benefit, the Department of Transportation concluded that the substitution policy would save money as well.²²⁸

Accordingly, all federal agencies should be encouraged to use the automatic substitution to advance the Affirmative Procurement Program on other products. Examples include recycled toner cartridges, plastic covered binders, traffic cones.²²⁹

Although there is no one-size-fits-all approach in implementing EPP in the procurement actions, the suggested approaches are nevertheless based on common sense. There is nothing unique about the above approaches. Common sense dictates that EPP

²²⁴ MacCadney, *supra*, note 10.

²²⁵ *Supra* note 202.

²²⁶ *Automatic Substitution – Increase Purchasing and Reduce Reporting*, CLOSING THE CIRCLE NEWS, at 4 (U.S. Office of the Fed. Env'tl. Executive Winter 1999-2000).

²²⁷ *Id.*

²²⁸ *Id.*

²²⁹ *See id* for other examples.

can be integrated with the traditional procurement process. It does not substitute the process, but adds environmental considerations to price and performance.

As federal agencies continue to implement the EPP program, changes will be made. The next chapter explores some of those future trends.

CHAPTER 7: FUTURE TRENDS

The push for “greening” the government will continue as long as our natural resources remain limited. There is still plenty of room for improvement. Some of those areas, which can be improved include the following:

A. FAR Revision

The FAR revision that will take effect on 7 Aug 2000 has made adequate improvements relating to the environment. The revision tries to make the FAR parallel to the requirements of Executive Order 13101 and make it user-friendly by reorganizing some sections. However, it still does not provide that needed “step-by-step” implementation. Granted, implementing EPP is not easy because of its complex nature. Nevertheless, there are sufficient common approaches that can be institutionalized. A good example is the purchase of EPA-designated items and the application of its four exemptions. As indicated in Chapter 4, one can develop a step-by-step analysis before applying any of the exemptions. In short, as the application of Executive Order 13101 and its legislative authority mature, the FAR should continue to make changes, hopefully more of a “step-by-step” procedure.

B. IMPAC Card Documentation

Additionally, as the number of IMPAC card users and purchases from IMPAC cards continue to grow, the need to monitor the success of the EPP program increases, and some documentation for the use of the IMPAC card will be necessary. If there were no form of documentation required for purchases of EPP designated items, it would be difficult to gauge the success of the program. There is no indication how this unreported

data can have an effect on the success of the program as well. In short, there should be a short concise, user friendly, documentation.

C. Price Differential

Similarly, until the procurement process matures with the implementation of the EPP, price differential will be more of a viable tool. By its very nature, price differential provides incentives to potential bidders in either generating, or providing new, environmentally preferable product. Price differential also helps generate not only the product but also the market for the EPP. Once that product becomes the industry standard, its procurement may not need further price preference. Thus, the next step is to proceed with another price differential for a new product.

Understandably, the disadvantages of using a price differential are the sufficiency of funding in a particular procurement and the ability of a bidder to absorb the cost of fulfilling the contract requirement. Regarding the funding, thorough acquisition planning helps solve this problem. Regarding the latter, price differential may be discretionary for large business contracts that can absorb the extra cost. However for small business contracts, it may be a good idea to require use of price differential only when dealing with EPP procurement.

D. Grants/R&D

According to Linda Mesaros, Chief of Staff of the White House Task Force on Recycling, there should be more grants and more research and development (R&D) in advancing technologies in recycling.²³⁰ She claims that we see and hear many grants being given and R&D conducted on non-environmental issues, but hardly on

²³⁰ Interview with Linda Mesaros, Chief of Staff of the White House Task Force on Recycling, in Washington, DC (Mar. 23, 2000).

environmental matters. With the increasing emphasis on the environment, more funding for grants and R&D is the next logical step in advancing environmental programs.

The Department of Commerce has initiated a program that encourages companies to take advantage of R&D funding up to \$2,000,000 for projects involving recycling technologies.²³¹ The National Institute of Standards and Technology manages this program, called Advanced Technology Program (ATP).

The four major selection criteria of the ATP programs are (1) potential for the United States economic benefit, (2) good technical ideas, (3) strong industrial commitment, and (4) the opportunity for ATP funds to make a significant difference.

The ATP program is a great opportunity to put forth program ideas related to recycling and to provide proposals that could possibly fund new technologies. However, there should be more of these programs to advance technology for the benefit of the environment.

E. Enforcement

One additional trend includes compliance enforcement. Currently, procuring agencies and legal enforcement are just beginning because of the infancy and the complexity of EPP implementation. However, as the EPP program matures this will probably change. Currently, noncompliance with the law is subject to a notice of violation and a citizen suit. However, if constant non-compliance continues, one could expect the initiation of a penalty.

²³¹ *Advanced Technology Program*, (visited Jun. 6, 2000) <<http://www.ofee.gov/html/atp.htm>>. For more information on ATP contact: ATP, NIST/A407 Admin Building/Gaithersburg, MD 20899-0001 or through e-mail and phone numbers. E-mail is tp@nist.gov; Hotline number is 1-800-ATP-FUND; and Fax number is (301) 926-9524.

CONCLUSION

Since Congress enacted the RCRA in 1976, the federal government has made a slow but steady progress of “greening” the government. With the recent revitalization of the government’s commitment to the environment, including the continued efforts of marrying the environmental and procurement communities, progress will continue.

The federal government, as the country’s large consumer, should continue its policy to use its purchasing power to advance the growth of EPP. It would be convenient if we have the technology to replicate our resources instantaneously as many have seen in science fiction shows as a panacea. But, until that day comes, “greening” the government will continue to evolve. Changes will continue as new environmental program develops. Changes are normally greeted with fear and skepticism, but with careful planning, the federal government achieves progress.

APPENDIX A

GLOSSARY

Acquisition means the acquiring of products and services (including construction) by contract with appropriated funds by and for the use of the Federal government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to meet those needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

Biobased products means a commercial or industrial product (other than food or feed) that utilizes biological products or renewable domestic agricultural (plant, animal, and marine) or forestry materials.

Environmental preferable products (EPP) mean products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.

EPA-Designated Items (CPG items) are items designated in Environmental Protection Agency's (EPA's) Comprehensive Procurement Guideline that are, or can be, made with recovered materials.

Life cycle assessment (LCA) is a process for evaluating the environmental burdens associated with a product, process, or activity. LCAs identify and quantify energy and material uses and releases to the environment. The assessment covers the entire life-cycle of the product, process, or activity, including extracting and processing the raw materials; manufacturing, transporting, and distributing the product; product use, reuse, and maintenance; recycling; and, final disposition.

Life cycle cost means the amortized annual cost of a product, including capital costs, installation costs, operating costs, maintenance costs and disposal costs discounted over the lifetime of the product.

Market survey means an attempt by contracting agency to ascertain whether there are unknown qualified sources capable of satisfying the government's requirements. This testing of the marketplace may range from written or telephone contact with federal and other experts regarding similar or duplicate requirements (and the results of any market test recently undertaken) to more formal "sources sought" announcements.

Material safety data sheet (MSDS) identifies any hazardous materials used in a product and outline proper safety precaution.

Multi-media inspections are inspections that target geographic areas, pollutants of concern, industries, companies, or facilities with poor compliance histories from enforcement efforts involving multiple programs or media.

Non-governmental entities include, but are not limited to, voluntary consensus standards bodies (see section 12(d) of the National Technology Transfer and Advancement Act (Pub. L. 104-113, section 12(d), 5 U.S.C. 272 note), environmental standard setting organizations, third party certification programs, environmental labeling or environmental "report card" programs and other environmental consulting organizations.

Pollution prevention also known as "source reduction," as defined under Pollution Prevention Act of 1990 (42 U.S.C. section 13102), and other practices that reduce or eliminate the creation of pollutants through increased efficiency in the use of raw materials, energy, water, or other resources; or protection of natural resources by conservation. The Pollution Prevention Act defines *source reduction* to mean any practice that (1) reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal

Procurement item means any device, good, substance, material, product, or other item whether real or personal property that is the subject of any purchase, barter, or other exchange made to procure such item.

Recovered materials means waste materials and by-products that have been recovered or diverted from solid waste, but such terms does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process.

Recyclability means the ability of a product or material to be recovered from, or otherwise diverted from, the solid waste stream for the purpose of recycling.

Recycling means the series of activities, including collection, separation, and processing, by which products and other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of new products other than fuel for producing heat or power by combustion.

Waste prevention, also known as "source reduction," means any change in the design, manufacturing, purchase or use of materials or products (including packaging) to reduce their amount or toxicity before they become municipal solid waste. Waste prevention also refers to the reuse of products or materials.

APPENDIX B

[LETTERHEAD]

[Installation Commander's Policy Directive]

1. [NAME OF THE INSTALLATION] purchases and uses products and services that can have a profound impact on the environment. [Name of the Installation] recognizes the positive impact that it can make on the environment through the purchasing decisions that its military members and employees make. I intend that [Name of the Installation] will integrate environmental considerations into every aspect of the acquisition. Although the environment may not be the core of our professional mission, the integration of these factors will result in economic, health, and environmental gains that will further our goals.

2. Overall Statement of Policy

- a. Members of [name of the installation] should seek to reduce the environmental damages associated with their purchases by increasing their acquisition of environmentally preferable products and services to the extent feasible, consistent with price, performance, and availability. Environmentally preferable products refers to products or services that have reduced effect on human health or the environment when compared with competing products or services that serve the same purpose.
- b. Environmental factors should be taken into account as early as possible in the acquisition planning and decision making-process.
- c. Responsibility for environmentally preferable purchasing should be shared among the program, acquisition, and procurement personnel.
- d. Environmentally preferable purchasing represents one important component of this installation's commitment to pollution prevention.

3. [Name of the Installation] is committed to the following:

- a. Increasing the acquisition of environmentally preferable products and services.
- b. Identifying and implementing pilot projects to test the best ways to incorporate environmentally preferability into acquisition.
- c. Establishing incentive and award programs to recognize those people, teams, and interagency work groups who are most successful at promoting the purchase of environmentally preferable products.

[Signature of Installation Commander]

APPENDIX C

SOLICITATION No. _____

PAGE 1 OF 2

ADVANCED CONTRACTING PLAN

PROJECT TITLE: _____

	PROJECTED	REVISED	ACTUAL
1. Acquisition Strategy Panel Meeting			
2. Receipt of Statement of Needs			
3. Incorporate EPP/EPA-Designated Items			
4. Conduct Market Research			
5. PWS Development			
6. Receipt of Requirements Package			
7. SBA Coordination			
8. Synopsis			
9. Draft of Solicitation/EPP considerations			
10. Flight Chief Review			
11. CONS Committee Review			
12. Buyer Revisions			
13. Legal Review			
14. ACC Review			
15. Printing of Solicitation			
16. Issuance of Solicitation			
17. Prebid Conference/Site Visit			
18. RFP Closing			
19. Proposal Evaluation/Negotiations			
20. Contract Draft			
21. Flight Chief Review			
22. CONS Committee Review			
23. Buyer Revisions			
24. Legal Review			
25. ACC Review			
26. Contract Award			
27. Synopsis of Award			
28. Preperformance Conference			
29. Contract Start			

PAGE

PROJECT TITLE: _____

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There is no handwriting or other markings on the paper.

Flight Chief:

88

APPENDIX D

Recovered Materials Determination Form

Instructions

The procurement originator must complete this form when EPA-designated items included in the Affirmative Procurement Program are being procured from outside vendors. For questions on whether the product counts as "EPA designated" or what the required content is, contact [POC from the Affirmative Procurement team and phone number]

1. The procurement originator marks the item(s) that apply to the procurement request, and signs and dates the appropriate Certification on the back of this form.
2. If an exemption is being claimed, the procurement originator's squadron commander approves the procurement by also signing the Certification on the back of this form.
3. The completed form becomes part of the contracting office contract file.

Procurement Request No. _____

The EPA-designated items being procured are:

- | | | |
|---|--|--|
| <input type="checkbox"/> Awards and plaques | <input type="checkbox"/> Laminated paperboard | <input type="checkbox"/> Plastic presentation folders |
| <input type="checkbox"/> Binders
(paper, solid plastic, or
plastic covered) | <input type="checkbox"/> Landscaping timbers and
posts (plastic lumber) | <input type="checkbox"/> Plastic trash bags |
| <input type="checkbox"/> Building insulation | <input type="checkbox"/> Latex paint | <input type="checkbox"/> Playground equipment |
| <input type="checkbox"/> Carpet | <input type="checkbox"/> Lawn and garden edging | <input type="checkbox"/> Playground surfaces |
| <input type="checkbox"/> Carpet cushion | <input type="checkbox"/> Mats | <input type="checkbox"/> Printer ribbons |
| Cement & concrete containing | <input type="checkbox"/> Newsprint | <input type="checkbox"/> Printing and writing papers |
| <input type="checkbox"/> Coal fly ash | <input type="checkbox"/> Office recycling containers | <input type="checkbox"/> Railroad grade crossing
surfaces |
| <input type="checkbox"/> Ground granulated blast
furnace slag | <input type="checkbox"/> Office waste receptacles | <input type="checkbox"/> Re-refined lubricating oils |
| <input type="checkbox"/> Channelizers | <input type="checkbox"/> Pallets | <input type="checkbox"/> Retread tires |
| <input type="checkbox"/> Commercial/industrial
sanitary tissue products | <input type="checkbox"/> Paperboard and packaging | <input type="checkbox"/> Running tracks |
| <input type="checkbox"/> Compost from yard
trimmings or food waste | <input type="checkbox"/> Park and recreational
furniture | <input type="checkbox"/> Shower & restroom dividers/
partitions |
| <input type="checkbox"/> Delienators | <input type="checkbox"/> Parking stops | <input type="checkbox"/> Signage |
| <input type="checkbox"/> Engine coolants | <input type="checkbox"/> Patio blocks | <input type="checkbox"/> Sorbents |
| <input type="checkbox"/> Flexible delienators | <input type="checkbox"/> Plastic clipboards | <input type="checkbox"/> Strapping and stretch wrap |
| <input type="checkbox"/> Floor tiles | <input type="checkbox"/> Plastic clip portfolios | <input type="checkbox"/> Structural fiberboard |
| <input type="checkbox"/> Flowable fill | <input type="checkbox"/> Plastic desktop accessories | <input type="checkbox"/> Toner cartridges |
| <input type="checkbox"/> Garden and soaker hoses | <input type="checkbox"/> Plastic envelopes | <input type="checkbox"/> Traffic barricades |
| <input type="checkbox"/> Hydraulic mulch | <input type="checkbox"/> Plastic fencing | <input type="checkbox"/> Traffic cones |
| | <input type="checkbox"/> Plastic file folders | <input type="checkbox"/> Tray liners |

CERTIFICATION

Procurement Request No. _____

Complete Part A or Part B as appropriate:

Part A. I hereby certify the Statement of Work/Specifications for the requisition of all materials listed on this form complies with EPA standards for recycled/recovered materials content.

Procurement Originator's Signature

Date

Part B. The following item does not comply with EPA standards for recycled/recovered materials. (*Complete and attach a separate justification for each noncompliant item purchased as part of this procurement action*). _____

The exemption being claimed for this purchase is:

- ☐ The product does not meet appropriate performance standards.
- ☐ The product is not available within a reasonable time frame.
- ☐ The product is not available competitively (from two or more sources).
- ☐ The product is only available at an unreasonable price. The recycled-content product costs \$_____ per _____ and the non-recycled-content product costs \$_____ per _____.

Procurement Originator's Signature

Date

- ☐ Approved.
- ☐ Disapproved.

Squadron Commander's Signature

Date

APPENDIX E

Purpose¹

The purpose of this guideline is to provide guidance for [name of installation] personnel in procuring designated paper and paper products containing recovered materials. As used in this guideline, the term "paper and paper products" does not include building and construction paper grades. Adherence to the practices recommended in this guideline constitutes compliance with Section 6002 of RCRA, as it relates to the purchase of paper and paper products.

Applicability

This guideline applies to all [name of installation] procurement actions involving appropriated or non-appropriated federal funds, including:

- All purchases of paper and paper products made directly by the contracting squadron or IMPAC cardholders;
- All purchases of paper and paper products made directly by any base contractor or contractor's employee when those products are used in support of work being performed under a contract with any base activity (e.g., contract printing); and
- Indirect purchases of paper and paper products made by any base activity, such as purchases resulting from federal grants, loans, and similar forms of disbursements of monies that the base activity intended to be used for the procurement of paper or paper products.

Purchases of paper and paper products that are unrelated or incidental to federal funding (i.e., not the direct result of a federal contract, grant, loan, funds disbursement, or agreement with a base procuring agency) are not covered by this guideline.

Preference Program

This section describes the base preference program for paper and paper products. The required minimum recovered material content levels for designated paper and paper products are shown in Table 1. Additional information on the preference program and on the remaining three program elements (promotion program; estimates, certification, and verification; and annual review and monitoring) is provided in the Program Elements section of this document. The base Affirmative Procurement Team is responsible for setting the recovered material content standards for paper and paper products based on the levels shown in Table 1.

Table 1
Minimum Recovered Fiber Content Levels for Paper and Paper Products

<i>Item</i>	<i>Minimum Percentage of Recovered Fiber^{2,3}</i>	<i>Minimum Percentage of Post- consumer Recovered Fiber^{2,3}</i>
<i>Uncoated Printing and Writing Papers:</i>		
Reprographic Paper (e.g., mimeo and duplicator paper, high-speed copier paper, and bond paper)	30	30
Offset Paper (e.g., offset printing paper, book paper, bond paper)	30	30
Tablet Paper (e.g., office paper such as note pads, stationery, and other writing papers)	30	30
Forms Bond (e.g., forms, computer printout paper, ledger paper)	30	30
Envelope Paper:		
Kraft	30	30
White and colored (including manila)	10-20	10-20
Unbleached	10	10
Cotton Fiber Paper	30	30
Text and Cover Paper	30	30
Supercalendered	10	10
Machine Finish Groundwood	10	10
Papeteries (Invitations and Greeting Cards)	30	30
Check Safety Paper	10	10
<i>Coated Printing and Writing Papers:</i>		
Coated Printing Paper	10	10
Carbonless	30	30
<i>Bristols:</i>		
File Folders (manila and colored)	30	30
Dyed Filing Products	20-50	20
Cards (e.g., index, postal, and other, including index sheets)	50	20
Pressboard Report Covers and Binders	20	20
Tags and Tickets	20	20

Table 1
(continued)

<i>Item</i>	<i>Minimum Percentage of Recovered Fiber^{2,3}</i>	<i>Minimum Percentage of Post- consumer Recovered Fiber^{2,3}</i>
<i>Newsprint:</i>		
Newsprint	20-100	20-85
<i>Commercial/Industrial Sanitary Tissue:</i>		
Bathroom Tissue	20-100	20-60
Paper Towels	40-100	40-60
Paper Napkins	30-100	30-60
Facial Tissue	10-100	10-15
General Purpose Industrial Wipes	40-100	40
<i>Paperboard and Packaging Products:</i>		
Corrugated Containers: <300 psi	25-50	25-50
300 psi	25-50	25-30
Solid Fiber Boxes	40	40
Folding Cartons	100	40-80
Industrial Paperboard (e.g., tubes, cores, drums, and cans)	100	45-100
Miscellaneous (e.g., pad backs, covered binders, book covers, mailing tubes, protective packaging)	90-100	75-100
Padded Mailers	5-15	5-15
Carrierboard	10-100	10-15
Brown Papers (e.g., wrapping paper and bags)	5-40	5-20
<i>Miscellaneous Paper Products</i>		
Tray Liners	100	50-75

Notes:

¹ See RADIAN INT'L LLC, *Affirmative Procurement Plan for Peterson AFB*, 21 (1998). See also U.S. ENV'TL PROTECTION AGENCY, *EPP Credit Card Purchasing* <<http://www.epa.gov/opptintr/epp/creditcard/htm>>.

² This table includes the standards for both percentage of recovered fiber and percentage of post-consumer fiber. These percentages should be read as X% recovered fiber, *consisting of* Y% post-consumer fiber; as opposed to X% recovered fiber *plus* Y% post-consumer fiber.

³ Percentages are based on fiber weight of the product rather than the total weight of the product. The total weight includes fillers, dyes, and water.

Appendix F

Environmental Attributes¹

Below is a list of environmental attributes that can help Executive agencies assess the environmental performance of products and services. This list, viewed from a life cycle perspective can enable Executive agency purchasers to select the product or service that minimizes adverse environmental impact. Although, it is a preliminary list of the major sources of potential human health and environmental risk, this source should not be considered definitive. Definitions for each of the attributes follow the list. Agency personnel can use this list in two ways:

- (1) To provide a framework for identifying the most important environmental attributes of products and services, and using that information in product or service comparisons.
- (2) As a check list of environmental issues to consider when designing and acquiring systems or buildings.

Not all of the environmental attributes will apply to each product or service; indeed, in some cases, information on just a few key environmental attributes will enable Executive agency personnel to determine environmental preferability.

The list of environmental attributes suggests that Federal agency personnel can use two different approaches to soliciting information from providers of products and services. The first includes consideration of releases of pollutants that occur during the life-cycle of the product. In the research on product life-cycle assessments that have been conducted over the past several years, these releases are known as “inventory” items. Alternatively, the risks (or risk surrogates) associated with various life-cycle stages of a product can be identified. This approach seeks to identify actual environmental impacts rather than solely environmental releases. When calculating risks, general population (both environmental and human) exposures and occupational exposures need to be considered. Executive agencies may consider using both risk and release data in their decisions to purchase environmentally preferable products and services.

If product and service providers use this list as a basis for making environmental marketing claims, the claims should conform to the FTC’s *Guides for the Use of Environmental Marketing Claims (Green Guides)*, 16 C.F.R. Part 260). **A copy of the Green Guides can be obtained through FTC’s Web site** . Any party making a claim (or an independent third party that is certifying a claim) concerning a product’s environment attribute must, at the time the claim is made, possess and rely upon a reasonable basis for substantiating the claim (16 C.F.R. § 260.5). A reasonable basis consists of competent and reliable evidence. In the context of environmental marketing claims, such substantiation will often require competent and reliable scientific evidence, defined as tests, analyses, research, studies, or other evidence based on the expertise of professionals in the relevant area, conducted and evaluated in an objective manner by persons qualified to do so, using procedures generally accepted in the profession to yield accurate and reliable results.

The *Green Guides* state that either an unqualified or inadequately qualified claim that a product is "environmentally preferable" implies to consumers that a product is generally environmentally superior to others. "Environmentally preferable" claims should be accompanied by language limiting the superiority claim to the particular attributes that can be substantiated. For example, *Green Guides* state that environmental seals-of-approval should be accompanied by information on product labels explaining the basis for the award.

Appendix F(1) — Menu of Environmental Attributes

Executive agency personnel are reminded that the attributes listed and defined below are not comprehensive. In addition, Executive agency personnel should note that not all of these attributes will be applicable to every product or service. Furthermore, different attributes may be applicable to each product or service life cycle stage being considered.

A. Natural Resources Use

- Ecosystem impacts, such as endangered species, wetlands loss, fragile ecosystems, erosion, animal welfare, etc.
- Energy consumption, which can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks.
- Water consumption which can serve as an indicator of water quality impacts, risks to aquatic ecosystems, and degradation of drinking water resources.
- Non-renewable resource consumption, which can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks and risks to endangered species and fragile ecosystems.

Renewable resource consumption, which can serve as an indicator of loss of biodiversity and increased erosion. Although in many cases the use of renewable resources is considered environmentally preferable to use of nonrenewable resources, products made from renewable resources may also have negative environmental impacts (e.g., ethanol is derived from a renewable resource, yet its manufacture can lead to releases of VOCs).

B. Human Health and Ecological Stressors

- Bioaccumulative pollutants.
- Ozone depleting chemical global warming gases.
- Chemical releases
(Toxics Release Inventory (TRI) list chemicals or others.)
- Ambient air releases (other than TRI, including volatile organic compounds and particular matter).
- Indoor environmental releases (consumer and occupational).
- Conventional pollutants released to water.
- Hazardous waste.
- Non-hazardous solid waste(e.g., municipal solid waste, large volume waste, surface impoundments).
- Other stressors.

C. Hazard Factors Associated With Materials

Human Health Hazards:

- acute toxicity
- carcinogenicity
- developmental/reproductive toxicity
- Immunotoxicity
- irritancy
- neurotoxicity
- sensitization
- corrosivity
- flammability
- reactivity
- other chronic toxicity

Ecological Hazards:

- aquatic toxicity
- avian toxicity
- terrestrial species toxicity

D. Positive Attributes

The attributes listed below are viewed as positive because they either serve as proxies for minimizing natural resource use or avoiding waste and the associated environmental impacts identified in A, B, and C. These attributes also are linked to authorities and requirements in statutes or executive orders that encourage the Federal government to promote their use. "Recyclability" and "recycled content" are attributes encouraged under RCRA. There are executive orders that encourage Federal agencies acquire bio-based products, and to promote energy efficiency and water conservation. "Durability", "reusability", "take-back", and "reconditioned or remanufactured" are positive attributes that encourage source reduction. "Product disassembly potential" increases the potential for source reduction and recycling of product components. Agencies should note that the presence of these attributes alone does not automatically make a product or service environmentally preferable. When making purchasing decisions, executive agencies should consider a range of environmental impacts associated with products from a life cycle perspective when making purchasing decisions.

- Recycled content
- Recyclability
- Product disassembly potential
- Durability
- Reusability
- Reconditioned or remanufactured
- Take-back
- Bio-based
- Energy efficiency
- Water efficiency
- Other attributes with positive environmental effects

Appendix F(2)—Definitions for Terms on the List of Environmental Attributes

A. Natural Resource Use

- (1) Ecosystem impacts- adverse impacts on the ecosystem, for example, endangered species, wetlands loss, fragile ecosystems, erosion.
- (2) Energy consumption- the total amount of energy consumed for product or service manufacture, use, and disposal. Different sources of energy are associated with different environmental impacts.
- (3) Water consumption- refers to the water resources that are consumed or used, which can serve as an indicator of water quality impacts, risks to aquatic ecosystems, and degradation of drinking water resources.
- (4) Non-renewable resource consumption- those resources consumed that are not renewable in 200 years (e.g., fossil fuels, minerals). This can serve as an indicator of acid rain, climate change potential, air pollution, and associated human health risks and risks to endangered species and fragile ecosystems.
- (5) Renewable resource consumption: refers to a continuum of resources, from those that are renewable in under 200 years, such as timber-based products, which can serve as an indicator of biodiversity loss and increased erosion, to those which are renewable in less than 2 years, such as grain-based feed stocks.

B. Human Health and Ecological Stressors

- (1) Bioaccumulative pollutants- those chemicals that bioconcentrate in the environment as described in the *Significant New Use Rule* for new chemicals. (40 CFR 721.3.)
- (2) Ozone depleting chemicals- defined in the Protection of Stratospheric Ozone Final Rule. (58 FR 65018, December 10, 1993.)
- (3) Global warming gases- listed in *Climate Change 1992, The Scientific Report on the IPCC Scientific Assessment*. (Table A 2.1.)
- (4) Chemical releases- ambient releases of chemicals of concern such as those reported in the TRI of the Emergency Planning and Community Right-to-Know Act. The current list is reported in 40 CFR 372.65.
- (5) Ambient air pollutants- pollutants for which ambient air quality standards have been developed. (40 CFR 50.4- 50.12.) These pollutants include nitrogen dioxide, sulfur dioxide, ozone precursors, particulate matter, carbon monoxide, and lead.
- (6) Indoor environmental releases- releases to an indoor environment of potentially hazardous chemicals such as those reported in the TRI in both occupational and consumer settings.
- (7) Conventional pollutants- defined in 40 CFR 401.16. These pollutants include biochemical oxygen demand, total suspended solids, fecal coliform, pH, and oil and grease.
- (8) Hazardous waste- Quantity of Resource Conservation and Recovery Act (RCRA) hazardous waste as defined in 40 CFR 261.3.
- (9) Non-hazardous waste- solid waste as defined in 40 CFR 261.3. Includes municipal solid waste, large volume waste (e.g., oil and gas, mining, etc.) and solids disposed of in surface impoundments.

(10) Other stressors- any other stressors associated with the product or service but not captured elsewhere.

C. Factors Associated With Materials

Human Health Hazards

(1) Acute toxicity- the potential of a chemical substance to cause adverse health effects from short-term exposure.

(2) Carcinogenicity- defined by EPA through a weight-of-evidence approach. (51 FR 33992, September 24, 1986 and 61 FR 17960, April 23, 1996.) When quantification is possible, slope factors or other measures such as LED10 can also be used to express carcinogenic potency.

(3) Development/reproductive toxicity- adverse effects on the developing organism that result from chemical exposure prior to conception (i.e., either parent), during prenatal development, or, postnatally, to the time of sexual maturation. (56 FR 63798, December 5, 1991.) Reproductive toxicity is any adverse effect on an organism's ability to reproduce. (61 FR 56274, October 31, 1996.)

(4) Immunotoxicity- any adverse effect on an organism's immune system that results from exposure to a chemical substance.

(5) Irritancy- defined according to the Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR part 1910.1200) or other standard scales such as EPA or Organization for Economic Cooperation and Development (OECD) Guidelines (EPA 712-C-98-196, August, 1998.)

(6) Neurotoxicity- any adverse change in the development, structure, or function of the central and peripheral nervous system following exposure to a chemical agent (59 FR 42272, August 17, 1994.)

(7) Sensitization- an immunologically mediated cutaneous reaction to a substance. EPA test methods for evaluating sensitization potential are found in 40 CFR part 798.4100.

(8) Other chronic toxicity- the potential of a chemical substance to cause an adverse effect on any organ or system following absorption and distribution to a site distant from the toxicant's entry point.

(9) Corrosivity- dermal corrosion is defined by EPA as the production of irreversible tissue damage in the skin following application of a test substance. Test methods for evaluating dermal corrosion can be found in the harmonized Office of Prevention, Pesticide and Toxic Substances (OPPTS) guidelines for acute dermal irritation. (OPPTS 870.2500.) These guidelines harmonize the TSCA, FIFRA and OECD requirements in this area. The OSHA HazCom Standard listed above for irritancy also explicitly or implicitly covers corrosivity, sensitization, neurotoxicity, and all other toxic endpoints.

(10) Flammability- defined by the OSHA HazCom Standard (29 CFR 1910.1200) and ignitability is defined in 40 CFR part 261.21.

(11) Reactivity- defined in 40 CFR 261.23.

Ecological Hazards

(1) Aquatic toxicity- the potential of a substance to have an adverse effect on aquatic species. Measurement methods for aquatic toxicity can be found in 40 CFR part 797, subpart B.

(2) Avian toxicity- the potential of a substance to have an adverse effect on avian species.

(3) Terrestrial species toxicity- the potential of a substance to have an adverse effect on terrestrial species, other than man.

Positive Attributes

The following attributes are generally viewed as positive because they either serve as proxies for minimizing natural resource use or avoiding waste and the associated environmental impacts identified in A, B and C. Agencies should note that the presence of these attributes alone do not automatically make a product or service environmentally preferable. Executive agencies should consider a range of environmental impacts associated with products from a life cycle perspective when making purchasing decisions.

(1) Recycled content: Materials that have been recovered from the solid waste stream, either during the manufacturing process (pre-consumer), or after consumer use (post-consumer) (see Federal Trade Commission Environmental Marketing Guides mentioned above for more detail). Executive agencies are required to purchase EPA-designated items with recycled content (40 C.F.R. Part 247). Purchasers may want to consider whether the material contains pre-consumer or post-consumer recycled content. Recycled content, under the Federal Trade Commission guides, includes recycled raw material, that would have otherwise been incinerated or land filled, as well as used, reconditioned and remanufactured components. For products that are only partially made of recycled material, a recycled claim should indicate the percentage, by weight, of recycled content in the finished product. Unless it is otherwise clear from the context of the sale, for products that contain used, reconditioned or remanufactured components, a recycled claim should make clear that such components are used, reconditioned or remanufactured. Manufacturer's scrap material that would have, in any case, been incorporated into the product does not qualify as recycled under the Federal Trade Commission's guides. Refer to 16 C.F.R. § 260.7(e).

(2) Recyclability: Refers to products or materials that can be collected, separated or otherwise recovered from the solid waste stream for reuse, or in the manufacture or assembly of another package or product, through an established recycling program. For products that are made of both recyclable and non-recyclable components, the recyclable claim should be adequately qualified to avoid consumer deception about which portions or components are recyclable. In

addition, unless recycling collection programs for the product are available to a substantial majority of communities or consumers where the product is sold, claims of recyclability need to be qualified to indicate the limited availability of recycling collection sites. A product that is made from recyclable material, but, due to its shape, size or some other attribute, is not accepted in recycling programs for such material, should not be marketed as recyclable. Refer to the FTC Environmental Marketing Guides, 16 C.F.R. § 260.7(d).

(3) Product disassembly potential: Refers to the ease with which a product can be disassembled for maintenance, parts replacement, or recycling.

(4) Durability: Refers to the expected lifetime of the product.

(5) Reusability: Refers to how many times a product may be reused. Since reusable products generally require more up-front costs than disposable products, they are often subjected to a cost/benefit analysis in order to determine the life cycle cost .

(6) Reconditioned/Remanufactured: Refers to the process of restoring used, durable products to meet original performance standards. Remanufacturing has many other names, including: rebuilding (automotive sector); retreading (tire remanufacturing); reconditioning; and refurbishing. Remanufacturing results in less waste and raw material and energy use.

(7) Take-back: Refers to the manufacturer or designee accepting a return of end-of-life product; who pays for the transportation of the product may be situation-specific.

(8) Bio-based: Refers to a commercial or industrial product (other than food or feed) that utilizes biological products or renewable, domestic, agricultural (plant, animal and marine), or forestry materials.

(9) Energy efficiency: Refers to products that meet or exceed the Department of Energy (DOE)/Federal Energy Management Program's product energy efficiency recommendations which identify the top 25 percent of energy efficiency for all similar products or that meet the energy efficiency criteria of the Environmental Protection Agency (EPA)/DOE Energy Star program.

(10) Water efficiency: Refers to any plumbing fixtures that meet or exceed the Department of Energy's Federal Energy Management Program recommended performance standards for flow rates.

(11) Other attributes: Refers to any other positive attributes that are associated with the product but are not listed here.

¹Final Guidance on Environmentally Preferable Purchasing for Executive Agencies, 64 Fed. Reg. 45810, 45810-45811 (1999).

APPENDIX G

Approach on Use of Non-Governmental Entities to Implement Section 503 of Executive Order 13101¹

Background:

Section 503(b)(2) of Executive Order 13101 directs EPA to issue guidance to address environmentally preferable purchasing. The guidance may also address "the issues of use of technical expertise of nongovernmental entities and tools such as life cycle assessment in decisions on environmentally preferable purchasing.

On September 28, 1995, EPA issued a proposed *Guidance on the Acquisition of Environmentally Preferable Products and Services* which includes a series of principles that are intended to guide Federal purchasers as they consider environmental preferability in their acquisition decisions. This proposed *Guidance* was the culmination of numerous discussions EPA had with staff from key purchasing agencies and departments as well as representatives from industry and environmental and other interested organizations.

In EPA's proposed *Guidance* (Supplementary Information - Section III (E)), EPA acknowledged the existence of non-governmental entities -- including, but not limited to, environmental standard setting organizations, third party certification programs, environmental labeling or environmental "report card" programs and other environmental consulting organizations -- to which Executive agencies, in appropriate circumstances, may refer for technical assistance² in meeting the Executive Order goals.

In this paper, EPA suggests a pilot project approach to test the utility of various means of using non-governmental entities to achieve environmentally preferable purchasing goals. This pilot project approach will be publicized through a *Notice of Availability* in the *Federal Register*. Ultimately the findings from the pilot project approach will provide practical information to EPA in the development of its final *Guidance*.

¹ Final Guidance on Environmentally Preferable Purchasing for Executive Agencies, 64 Fed. Reg. 45810, 45810-45811 (1999).

² For example, Executive agencies might seek technical assistance from non-governmental entities to help Executive agencies:
analyze life cycle and multiple environmental attributes;
analyze basic environmental performance characteristics for specific categories of products/services;
identify environmentally preferable product/service criteria for a given product category based on agencies' core environmental values; and
identify products/services in a given category which meet agencies' predetermined set of environmental performance criteria.

Executive agencies are reminded that they must critically examine all information from non-governmental entities. The Executive agencies involved, and not the non-governmental entities, must make all final determinations regarding environmental preferability.

Spectrum of Approaches

First, it must be emphasized that Executive agencies may choose to implement EPA's proposed *Guidance* without technical assistance from non-governmental entities. A number of on-going environmentally preferable purchasing (EPP) pilot projects are relying successfully on the in-house environmental and procurement expertise of EPA and the partnering Executive agency (e.g., General Services Administration and the Department of Defense). Therefore, this *paper should in no way be interpreted as an EPA endorsement of a specific non-governmental entity, organization or program, nor should agencies feel obligated in any way to utilize the technical assistance of such entities.*

However, to the extent that the Agencies are interested in tapping the expertise that resides outside the Government, EPA concludes that Agencies, in carrying out existing mandates for environmentally preferable purchasing may use non-governmental entities in accordance with appropriate operating guidelines. Executive agencies should note that they must avoid favoring, without reasonable justification, one non-governmental entity over another. Executive agencies should also inform their personnel about the Federal Trade Commission's *Guides for the Use of Environmental Marketing Claims* which govern environmental claims made by anyone, including manufacturers or environmental labeling or "report card" programs.

Thus far, EPA has identified a number of different potential approaches for how Executive agencies could use the technical expertise of non-governmental entities in furthering their environmentally preferable purchasing goals. All of the potential approaches described below require that the Executive agencies involved critically examine all information from non-governmental entities. The Executive agencies involved, and not the non-governmental entities, must make all final determinations regarding environmental preferability.

This list of approaches is not comprehensive. Agencies are encouraged to bring to EPA's attention other potential approaches for using non-governmental entities. In utilizing an approach, agencies have considerable discretion in incorporating environmental preferability into procurement decisions. For example, environmental considerations that result in limiting competition or in the payment of a price premium for goods or services may be reasonably related to an agency's definition of its "minimum needs" and therefore permissible.

Approach 1: Use of Existing Information Developed by Non-governmental Entities

Executive agencies' personnel could use existing information developed by non-governmental entities regarding environmental preferability of products and services, along with other available information (such as product performance and price) in defining the requirements for procurements and making more informed procurement and acquisition decisions. For example, Agencies might consider undertaking pilot projects to test the utility of non-governmental entities in the following instances:

Executive agencies could examine and evaluate already existing environmental criteria or standards developed by non-governmental entities for products or product categories (as well as for services or service categories), along with other available information, to identify a range of

environmental attributes which can inform the agencies' own determinations of environmental preferability. Those determinations of environmental preferability could then translate into agency requirements, or at the very least, important criteria in the evaluation and selection of competing vendors or manufacturers.

In buying commercial items off-the-shelf, Executive agencies could inform their personnel to take into consideration environmental information (e.g., environmental claims, product profiles, "report cards", or environmental seals along with accompanying explanation, etc.) either displayed on the products or provided through product literature or other materials (e.g., newsletters) in making purchasing decisions. This environmental information could be provided by vendors or manufacturers or by non-governmental entities. Executive agency personnel should be cautioned to avoid making their purchasing decisions on broad claims of environmental superiority.³

At the request of vendors or manufacturers, an Executive agency could include in its catalogs or schedules symbols from non-governmental entities denoting certain environmental characteristics, provided that (1) these symbols are accompanied by additional information that specify the reasons why a product has been "tagged" with a symbol; (2) the catalogs or schedules clearly emphasize that Executive agency personnel are not required to purchase products or services that are tagged; and (3) procurement officials should not rely on the symbols to make purchasing decisions, but instead, are required to take into account the environmental information underlying the symbol for relevance to the procurement.⁴ Agencies including such symbols in their schedules or catalogs should ensure that their employees receive appropriate

³ The following excerpt from FTC's *Guides for the Use of Environmental Marketing Claims* illustrates this point:

*A product is advertised as "environmentally preferable." This claim is likely to convey to consumers that this product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claim would not be deceptive if it were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which it could be substantiated, provided that no other deceptive implications were created by the context. (From FTC's *Guides*, (a) General Environmental Benefit Claims, Example 6).*

⁴ The following excerpt from FTC's *Guides for the Use of Environmental Marketing Claims* provides an example of this point:

*A product label contains an environmental seal, either in the form of a globe icon, or a globe icon with only the text "Earth Smart" around it. Either label is likely to convey to consumers that the product is environmentally superior to other products. If the manufacturer cannot substantiate this broad claim, the claim would be deceptive. The claims would not be deceptive if they were accompanied by clear and prominent qualifying language limiting the environmental superiority representation to the particular product attribute or attributes for which they could be substantiated, provided that no other deceptive implications were created by the context. (From FTC's *Guides*, (a) General Environmental Benefit Claims, Example 5).*

guidance in utilizing this approach. Vendors or manufacturers who choose not to obtain a seal or other symbols denoting certain environmental characteristics from non-governmental entities may nevertheless also request that environmental information about their products be included in the agency's catalogs or schedules.

This option will be piloted on a limited basis so that it can be closely monitored to determine its effectiveness.

On its own initiative, an Executive agency could tag products or services in its catalogs or schedules with its own symbol which denotes environmental characteristics that the Executive agency, through its own determination, deems preferable. This symbol could be based on existing information (e.g., environmental claims, product profiles, "report cards", or environmental seals along with accompanying explanation, etc.) available from non-governmental entities or from vendors or manufacturers themselves. This symbol should be accompanied by specific information explaining the basis for "tagging" a product as well as the source of the information. Catalogs or schedules should emphasize that Executive agency personnel would not be required to purchase products or services which are tagged, but are requested to take into account the environmental information underlying the symbol for relevance to the procurement.

Approach 2: Use of Non-governmental Entities as Certifiers of Specific Claims

Executive agencies could require vendors or manufacturers to have specific, measurable and verifiable claims certified by qualified non-governmental entities. A product's percentage content of volatile organic compounds (VOCs), for example, would be considered measurable and verifiable. The rationale behind this approach is that credible certification by non-governmental entities (or actual evidence from vendors or manufacturers themselves) could increase the credibility of claims that may be displayed on products. Such certification, or a vendor's or a manufacturer's ability otherwise to prove particular claims of environmental preferability, could be a prerequisite for competitive consideration.

This approach assumes that (1) no particular non-governmental entity is favored (without reasonable justification) over any other non-governmental entity; and (2) vendors or manufacturers who choose not to be certified by non-governmental entities are provided the opportunity to present credible evidence that their products or services conform to established standards.

Approach 3: Use of Non-government Entities as "Consultants" under Advisory and Assistance Contracts

Pursuant to the competitive contracting process as set forth in the Federal Acquisition Regulation (FAR), non-governmental entities could provide consulting services to Executive agencies. Non-governmental entities may provide advice and recommendations about environmentally preferable purchasing, for example, through the identification of key environmental characteristics of product categories. Under this approach, Executive agencies would define environmental preferability with the assistance of a non-governmental entity on a

procurement-by-procurement basis. As per FAR Subpart 9.5, Executive agencies must fully consider the potential for conflict of interest concerns where a non-governmental entity may be unable to render impartial advice or assistance because of private business or financial interests. Also, Executive agencies should make every effort to maximize competition in awarding these advisory and assistance contracts to avoid any exclusive or preferential relationship with any particular non-governmental entity. Finally, the environmental preferability standards developed under this approach could be used as a basis for defining the agency's "minimum needs" in particular procurements and for developing criteria for evaluating competing vendors.

EPA's Suggested Next Steps

One of the key tenets of EPA's proposed *Guidance* is to have Executive agencies undertake a series of pilot projects that can demonstrate the applicability and workability of the guiding principles as contained in EPA's proposed *Guidance*. The success of our efforts depends on learning from these pilot projects and sharing the results widely among the different Executive agencies. It is in this spirit that EPA strongly encourages Executive agencies to enter into pilot projects that test the potential approaches for using non-governmental entities as described above.

Moving forward with this non-governmental entities pilot approach is desirable for a number of reasons: 1) EPA can capture the lessons from the pilots and share them among the Executive agencies so that there is no duplication of effort; 2) we can determine where the use of expertise outside of the government is appropriate and useful and where it is not; and 3) the net effect of creating a market for such EPP services may encourage increased competition among existing and new organizations or programs that can support Federal procurement of environmentally preferable products and services. Ultimately, the results from this and other pilot project approaches will help Executive agencies identify the most effective and practical ways to achieve the goals of environmentally preferable purchasing.

EPA recognizes that any pilot project involving a non-governmental entity will initially raise practical questions such as which non-governmental entities are legitimate and are credible and which are not; is there a need to certify a certifier? While EPA is not currently able to offer an "approved" list of non-governmental programs best suited to assist the agencies, it is prepared to provide assistance to Executive agencies on an individual procurement-by-procurement basis. As an initial step, Agencies are directed to the list of questions for evaluating non-governmental entities contained in Section III, [E] Third Party Certification Programs of EPA's proposed *Guidance on the Acquisition of Environmentally Preferable Products and Services*. The list of questions is included as Appendix 1 of this letter.

Specifically, within the context of this non-governmental entity pilot project approach, EPA's Environmentally Preferable Purchasing Program in the Office of Pollution Prevention and Toxics, is prepared to:

- assist Executive agencies in structuring a pilot project involving non-governmental entities, including providing support to assess the utility of non-governmental entities on an individual procurement-by-procurement basis;

- seek out and identify non-governmental entities who have expertise in the area of environmentally preferable purchasing through a variety of means, such as, but not limited to, Federal Register notices or announcements in the Commerce Business Daily (CBD). To make such a task manageable, EPA will identify, with help and guidance from the agencies, a few product or service categories upon which to focus at first. If successful, further federal register notices or CBD announcements could be issued focusing on additional product or service categories;
- assemble a list of product categories for which eco-labeling criteria and standards have been established, both domestically and internationally for agencies to consider in developing their own criteria for environmental preferability. If appropriate, EPA will assist in such evaluations; and
- assist Executive agencies in structuring an environmentally preferable purchasing pilot project that does not involve non-governmental entities.

In turn, Executive agencies should consult with EPA when undertaking pilots which may raise environmental issues beyond their expertise (e.g., where a pilot involves consideration of the way a product is made).

Furthermore, Executive agencies who choose to undertake pilots under option 1(c) should consult with EPA in developing a written process or procedure for the role seals or symbols and the associated information would play in their pilots. For example, agencies should provide clear guidance which specifies the importance of considering the underlying criteria, not the seal or the symbol.

As EPA and Executive agencies embark on these activities, EPA will continue to explore a number of different ways that it can address issues which are raised within the pilot project context more definitively. Executive agencies will be kept informed of developments on these issues. Agencies should inform EPA of their efforts in environmentally preferable purchasing, whether such efforts involve non-governmental entities or not in order to share lessons learned among other agencies and to aid in the evaluation of the pilot projects. In this way, EPA can make EPP concepts more practical for use within the Federal acquisition context. To facilitate this, Agencies are requested to send the attached FAX BACK form. Pilot projects involving non-governmental entities will be evaluated over a period of the next three years. EPA will use the findings from that evaluation to inform the development of its final *Guidance*. For further information and to inform EPA of pilot project efforts, please contact:

Eun-Sook Goidel, Program Manager,
 Environmentally Preferable Purchasing Program,
 Pollution Prevention Division,
 Office of Pollution Prevention and Toxics
 (202)260-3296; (202)260-0178 FAX;
 e-mail: goidel.eunsook@epa.gov

For legal issues associated with use of non-governmental entities in environmentally preferable purchasing, please contact:

Tali Zemel, Esq.,
Office of General Counsel
(202)564-4708;
e-mail: Zemel.Avital@epa.gov

Attachment 1. List of Questions for Evaluating Non-governmental Entities⁵

Executive agencies should consider the following list of questions in evaluating non-governmental entities should agencies choose to use the expertise of these programs to pilot different approaches to achieve the goals of environmentally preferable purchasing such programs. Does the program have:

- an open, public process that involves key stakeholders (businesses, environmental and consumer groups, states etc.) in developing its criteria or standards?
- award criteria, assumptions, methods and data used to evaluate the product or product categories that are transparent (i.e., they are publicly available, easily accessed and understandable to the lay person)?
- a system of data verification and data quality?
- a peer review process (with representation of all stakeholders) for developing the standards or criteria?
- criteria which are developed based on a "systems" or life cycle approach (i.e., "cradle to grave")?
- an outreach program to educate the consumer, which includes clear communications to consumers that provide key information concerning environmental impacts associated with the product?
- an established goal of updating standards or criteria as technology and scientific knowledge advance?
- authority to inspect the facility whose product is certified to ensure compliance with the standards or criteria?
- testing protocols for the products that are certified which ensure testing is conducted by a credible institution?
- access to obtaining the seal by small and medium sized companies (e.g., the cost of the seal is not so high as to prevent access by companies)? and
- compliance with the Federal Trade Commission's (FTC) Guides for the Use of Environmental Marketing Claims?

FAX BACK FORM

Please Inform EPA about Your Pilot Project Involving the Use of Non-governmental Entities in Environmentally Preferable Purchasing!!

⁵ Excerpted from EPA's proposed *Guidance on the Acquisition of Environmentally Preferable Products and Services*.

Name:
Department/Agency:
Address:
Address:
Phone:
FAX
e-mail:

Type of Acquisition/Procurement:
(e.g., small purchase, credit card purchase, competitive bid, etc.)

Product/Service Category:

Name of Non-Governmental Entity:
Type of Non-Governmental Entity (check all that apply):
☐ environmental standard setting organizations
☐ third party environmental certification programs
☐ environmental labeling organizations
☐ environmental report card organization
☐ environmental consultants
☐ other (please specify: _____)

Type of Information/Assistance Sought from Non-Governmental Entity:
☐ general environmental information about a product/service category;
☐ analyze life cycle and multiple environmental attributes;
☐ analyze basic environmental performance characteristics for specific categories of products/services;
☐ identify environmentally preferable product/service criteria for a given product category based on agencies' core environmental values;
☐ identify products/services in a given category which meet agencies' predetermined set of environmental performance criteria; and
☐ other (please specify: _____)

Please FAX to: Eun-Sook Goidel
Program Manager
Environmentally Preferable Purchasing Program
U.S. Environmental Protection Agency
(202)260-0178 fax
(202)260-3296 phone

APPENDIX H

AFFIRMATIVE PROCUREMENT ENVIRONMENTALLY PREFERABLE PURCHASING FOR [NAME OF INSTALLATION]

What is Affirmative Procurement Program?

Affirmative Procurement Program (APP) is the purchase of environmentally preferable products manufactured from recycled materials, including products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. EPA has identified some of these products in their Comprehensive Procurement Guidelines and is known as "EPA designated items" or "Guideline items." There are currently 54 EPA designated items grouped into eight categories.

Executive Order (EO) 12873 drove the APP program until the President signed EO 13101 on 14 September 1998. The original intent of APP was to "close the loop: by buying products made with recycled materials. EO 13101 broadens this concept to include environmentally preferable purchasing in general.

What is required for [Name of Installation] affirmative procurement program?

Since EO 13101 takes its legal authority from the Resource Conservation Recovery Act (RCRA) Section 6002, APP requirements follow RCRA requirements. We must have:

1. a *preference program*, where the installation formally establishes its preference to buy recycled-content and environmentally preferable products;
2. a *promotion program*, in which we educate installation personnel and actively promote APP program;
3. procedures for *vendor or contractor estimates, certifications, and verification* – accomplished through contract clauses;
4. *annual monitoring and review* program.

Where can I get more information about the affirmative procurement program?

1. Base Implementation of Executive Order 13101: Buying Environmentally Preferable Products and Services.
2. List of Internet Resources: [list the internet resources; samples are listed below]
 - a. EPA designated items: <http://epa.gov/cpg>
 - b. Defense Logistic Agency (DLA) provides an electronic shopping mall at <http://www.supply.dla.mil>
 - c. General Services Administration (GSA): <http://www.fss.gsa.gov>
3. Installation's APP points of contact: [preferably a member of the APP team]

APPENDIX I

Environmental Performance Evaluation Worksheet

Contract Number: _____
Requirements Contract for Parking Lot & Road Repairs

Project Title Number: _____
Contractor: _____

Submittal Date: _____
Submittal #: _____

Item Description: TRAFFIC PAINT – YELLOW
Product Number: 3
Line Item #: 13 F 013G
013H 013J
004

Operational Requirement (Mandatory)	Requirement Met (Circle One)	
FS-TT-001952*	Yes	No
Water-based*	Yes	No
Lead-free*	Yes	No
Chromatic-free*	Yes	No
150 g/l VOC Content*	Yes	No

Price Differential Requirement (Optional)	Contractor Submittal	Requirement Met (Circle One)	
A. Less Than 150 g/l VOC Content	____ g/l VOC Content	Yes	No

Number of Price Differential Requirements Met: _____

*The contractor must attach additional information showing that both operational and price differential requirements have been met.

GOVERNMENT APPROVAL

DATE: _____

APPROVED/DISAPPROVED

COMMENTS: _____

Government Approving Official

APPENDIX J

TOOLS/RESOURCES

Life Cycle

Federal Facility Pollution Prevention Project Analysis: A Primer for Applying Life Cycle and Total Cost Assessment Concepts. Available at <http://epa.gov/oeca/fedfae/complian/lcatea.pdf>

Building for Economic and Environmental Sustainability (BEES 2.0). It is a free software tool that assists users in balancing environmental and economic concerns among products. Available for downloads at <http://epa.gov/opptintr/epp/bees.html>.

General Services Administration (GSA) provides electronic shopping for environmentally friendly products (GSA Advantage). It publishes several environmental catalogs and guides offering stock-listed products containing recovered materials, and other environmentally preferable products and services available through the Federal Supply Service (FSS).

Available at <http://www.fss.gsa.gov>

Defense Logistic Agency (DLA) provides an electronic shopping mall at <http://www.supply.dla.mil>

Defense Supply Center Richmond (DSCR) is DLA's Environmental Products catalog. Available at <http://www.dscr.dla.mil>.

Green Seal provides buy-recycled standards for recycled products. Available at <http://www.greenseal.org> or call at (202) 331-7337.

Energy Star promotes the use of energy-efficient products and services. Available at <http://www.epa.gov/energystar>.

EPA's Comprehensive Procurement Guidelines (EPA Designated Items) promotes federal government's purchase of recycled content products. Available at <http://www.epa.gov/cpg>.

Javits-Wagner-O'Day (JWOD) Program creates jobs and training opportunities for people who are blind or who have other severe disabilities. It is a mandatory source of supply for federal employees. JWOD program items are listed in the GSA Environmental Products catalog. Visit <http://www.jwod.gov/default.asp> and look under "How to Buy JWOD" for distributors and contracting information. For more information send E-mail to info@jwod.gov, call (703) 603-7740 or fax (703) 603-0655

Government Printing Office (GPO) furnishes blank paper, inks, and similar supplies to all governmental activities on order. It prepares catalogs and distributes and sells Government publications. To obtain recycled-content paper from GPO, your local Defense Automated Printing Services (DAPS) office is the main point of contact - or credit card holders may contact Mr. Bob Colvin at (202) 512-0208.

Air Force Center for Environmental Excellence (AFCEE) Affirmative Procurement Program home page offers this Guide, training materials, sample APP plans, and links to other resources. Please visit <http://www/afcee/brooks.af.mil>.

AFCEE's PRO-ACT Program is available to Air Force personnel and their contractors to answer technical questions about environmental program areas, including AP. Please contact PRO-ACT's research staff at DSN 240-4214 or visit the PRO-ACT web site at 131. <http://www.afcee.brooks.af.mil/pro-act>.

EPA maintains its *Environmentally Preferable Purchasing (EPP)* WWW site at <http://www.epa.gov/opptintr/epp/about.html>. EPP is a federal-wide program that encourages and assists federal agencies in the purchasing of environmentally preferable products and services. A number of related documents, fact sheets, and other links are accessible from this site

The *Office of the Federal Environmental Executive (OFEE)* advocates, coordinates, and assists the environmental efforts of the federal community in waste prevention, recycling, the affirmative procurement of Guideline Items, and the acquisition of recycled and environmentally preferable products and services. The OFEE has made available via their WWW site at <http://www.ofee.gov>

APPENDIX K

SUGGESTED TRAINING APPROACH

A. Start with the title of the training:

[Name of the Installation]
Environmentally Preferable Purchasing Affirmative Procurement Program Training
in Compliance with Executive Order 13101

B. Provide an outline of the training

- Purpose
- Definitions
- Environmental Attributes
- Benefits of EPP
- Common Misconceptions
- Authority
- Role of the Installation
- EPA Designated Items
- Executing the Program
- Resources/Websites
- Points of Contacts

C. State the purpose of the training:

To educate all [name of the installation] personnel about buying environmentally preferable products and services, including recycled-content products; and the installation EPP Affirmative Procurement program (APP).

D. Define the important terms of the Executive Order 13101 and provide examples, such as:

Environmentally preferable products and services are products and services that have lesser or reduced effect on human health and the environment when compared with competing products and services that serve the same purpose.

For example: The installation requires computers and there are two kinds of computers that will satisfy the needs assuming price, availability, and performance are relatively the same. One has recyclable/reusable parts, recycled parts, and energy efficient quality while the other does not have these environmental features. The installation should buy the computer with the environmental features.

E. Then, follow with teaching the trainees how to identify environmental features or attributes. Use the materials in Appendix F to teach the installation purchasers. For example,

There are generally two kinds of environmental attributes: positive and environmental impact. Examples of positive attributes are reusability or recyclability of a product.

Example of environmental impact attributes includes products that contain no hazardous materials or toxic chemicals.

- F. Convince the installation personnel why it is beneficial to buy EPP by listing the economic and environmental benefits, such as:

- Creating new technology and markets. (Use plastic lumber as an example)
- Minimize environmental effects. (Let the trainee visualize the benefits by providing examples)

- G. Dispel the common misconceptions of buying EPP. Provide examples, such as

Retread tires and re-refined oils were considered inferior, but actually they are of equal quality as their virgin counterparts. (Provide statistical proof)

- H. After informing the trainee about the benefits and the common misconceptions of buying EPP, make sure the trainees are informed of the legal authority of buying EPP. Some are:

- Air Force Instruction 32-7080, *Compliance Assurance and Pollution Prevention* (forthcoming 2000)
- Resource Conservation and Recovery Act Section 6002, enacted in 1976, as amended
- Executive Order 13101, *Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition* (14 September 1998)
- Federal Acquisition Regulation, Subchapter D, Part 23, *Environment, Occupational Safety, and Drug-Free Workplace* (revision takes effect on 7 August 2000)

- I. As a federal agency explain the role of the installation. This includes educating the trainees about the EPP Affirmative Procurement Program -- a preference, promotion, certification, and monitoring program. This is the opportunity to make the trainee aware of the specific elements of the program and how each of the trainees can contribute to the success of the program. For example, in the preference program, the trainee will learn that the installation has a preference towards EPP and recycled products. Also, in the promotion program, the trainee will learn how to disseminate the program to their co-workers and contractors. Also, explain who are the APP team members.

- J. Explain what are EPA designated items, what are the requirements, where they can be bought, what are the procedures, and where can they access more information. For example:

For USAF installation buyers, they are required to buy EPA designated items with the requisite amount of recycled content. (Provide a list using the information in Appendix E).

- K. Now that the trainees have been provided with the knowledge of the EPP program, they need to know how to execute it. Here, provide a "step-by-step" approach, if possible and other helpful hints. For example,

Although there may exist an exemption into buying EPA designated items, installation purchasers must not apply it automatically. Installation purchasers must determine whether there are other products with environmental attributes when compared with competing products that serve the same purpose without the attributes.

- L. Provide the trainee resources and website for further information. See Appendix J for a sample.
- M. Finally, provide points of contact (POCs) for all the trainees to help them with any questions or concerns. Preferably, the (POCs) should be a member of the APP team.

At the end of the training, it may be a good idea to distribute a summarized version of the training (important parts) with the names and numbers of the (POCs) in a 3" x 5" laminated flash cards for easy reference or reminder.

APPENDIX L

STANDARD FORM 1403 PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR

**PREAWARD SURVEY OF PROSPECTIVE CONTRACTOR
(GENERAL)**

1. SERIAL NO. (For surveying activity use)

OMB NO.: 9000-0011
Expires: 10/31/97

Public reporting burden for this collection of information is estimated to average 24 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0011), Washington, DC 20503.

SECTION I - REQUEST (For Completion by Contracting Office)

2. NAME AND ADDRESS OF SURVEYING ACTIVITY		3. SOLICITATION NO.	4. TOTAL OFFERED PRICE \$
		5. TYPE OF CONTRACT	
6A. NAME AND ADDRESS OF SECONDARY SURVEY ACTIVITY (For surveying activity use)		7A. NAME AND ADDRESS OF PROSPECTIVE CONTRACTOR	
6B. TELEPHONE NO. (Include AUTOVON, WATS, or FTS, if available)		7B. FIRM'S CONTACT	7C. TELEPHONE NO. (with area code)
8. WILL CONTRACTING OFFICE PARTICIPATE IN SURVEY? <input type="checkbox"/> YES <input type="checkbox"/> NO		13. NAME AND ADDRESS OF PARENT COMPANY (If applicable)	
9. DATE OF REQUEST	10. DATE REPORT REQUIRED		
11. PROSPECTIVE CONTRACTOR REPRESENT THAT IT <input type="checkbox"/> IS, <input type="checkbox"/> IS NOT A SMALL BUSINESS CONCERN.			
12. WALSH-HEALY CON ACT (Check applicable box(es))	A. IS NOT APPLICABLE		
	B. IS APPLICABLE AND PROSPECTIVE CONTRACTOR REPRESENTS HIS CLASSIFICATION AS: <input type="checkbox"/> MANUFACTURER <input type="checkbox"/> REGULAR DEALER <input type="checkbox"/> OTHER (Specify)		
15A. NAME OF REQUESTING ACTIVITY CONTRACTING OFFICER		14B. POINT OF CONTACT	14C. TELEPHONE NO. (with area code)
15B. SIGNATURE		16A. NAME OF CONTACT POINT AT REQUESTING ACTIVITY (If different from Item 15A)	
15C. TELEPHONE NO. (Include AUTOVON, WATS or FTS, if available)			
17. RETURN PREAWARD SURVEY TO THIS ADDRESS:		16B. TELEPHONE NO. (Include AUTOVON, WATS, or FTS, if available)	
ATTN:			

SECTION II - DATA (For Completion by Contracting Office)

18A. ITEM NO.	18B. NATIONAL STOCK NUMBER (NEW) AND NOMENCLATURE		18C. TOTAL QUANTITY	18D. UNIT PRICE	18E. DELIVERY SCHEDULE				
					(a)	(b)	(c)	(d)	(e)
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					
		SOLICITED							
		OFFERED		\$					

SECTION III - FACTORS TO BE INVESTIGATED

19. MAJOR FACTORS	CHK. (a)	SAT. (b)	UN-SAT. (c)	20. OTHER FACTORS (Provide specific requirements in Remarks)	CHK. (a)	SAT. (b)	UN-SAT. (c)
A. TECHNICAL CAPABILITY				A. GOVERNMENT PROPERTY CONTROL			
B. PRODUCTION CAPABILITY				B. TRANSPORTATION			
C. QUALITY ASSURANCE CAPABILITY				C. PACKAGING			
D. FINANCIAL CAPABILITY				D. SECURITY			
E. ACCOUNTING SYSTEM				E. SAFETY			
21. IS THIS A SHORT FORM PREAWARD REPORT? (For completion by surveying activity) <input type="checkbox"/> YES <input type="checkbox"/> NO				F. ENVIRONMENTAL/ENERGY CONSIDERATION			
				G. FLIGHT OPERATIONS/FLIGHT SAFETY			
22. IS A FINANCIAL ASSISTANCE PAYMENT PROVISION IN THE SOLICITATION? (For completion by contracting activity) <input type="checkbox"/> YES <input type="checkbox"/> NO				H. OTHER (Specify)			
23. REMARKS (For Contracting Activity Use)							

SECTION IV - SURVEYING ACTIVITY RECOMMENDATIONS

24. RECOMMEND <input type="checkbox"/> A. COMPLETE AWARD <input type="checkbox"/> B. PARTIAL AWARD (Quantity _____) <input type="checkbox"/> C. NO AWARD	25A. NAME AND TITLE OF SURVEY APPROVING OFFICIAL <hr/> 25C. SIGNATURE	25B. TELEPHONE NO. <hr/> 25D. DATE
---	--	---